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VOL. XVII.]

JANUARY, 1919.

[No. 6.

EDITORIAL NOTES.

THE account which Lord Willingdon, in the last meeting of the Legislative Council, rendered of his stewardship of the educational talents entrusted to his charge will in the opinion of all fair-minded people amply justify the claim that his governorship has been a period of progress remarkable when the circumstances are considered. The Hon'ble Mr. Paranjpye did Lord Willingdon no more than justice when he recognised that the credit for this record must in large measure be ascribed to His Excellency himself. Lord Willingdon was not and did not set up to be an educational 'expert,'—few men of modesty and common-sense do. But he had other qualities even more valuable in an administrator, a capacity for seeing other men's point of view and sympathising with legitimate aspirations and genuine feelings. This gave him a power of drawing opposites together, harmonising if not wholly reconciling diverging views and creating co-operation. Mr. Paranjpye rightly emphasised how much this had done for University progress. He came into office after a period of stormy dissensions occasioned by conflicting views of University reorganisation. He leaves the University still face-to-face with difficult problems but animated by a general desire to find solutions that all may accept. He leaves the Presidency convinced that Government is in earnest in its resolve to improve the conditions of education, to contribute generously in expediting reform and expansion and to listen to the views and desires of all who have a claim to be heard.

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The address of Sir Ibrahim Rahimtulla to the All-India Educational Conference at Surat was concerned principally with the educational backwardness of Mahomedans. The backwardness is admitted and though the quinquennial report shows some progress, the increase in this quinquennium is very much less than in previous.

story of what befel him. "On my return to school I met an elephant of immense size. So we (myself and cooly) ran quickly as our feet could carry us, and made our escape by climbing up a tree like a monkey, in which we spent about four hours. Fear and hunger prevailed us. The elephant did not see where we went. So it watched our coming again. I told the cooly to-day is our last day, and made ready for the death. Shivering with fear, turning face-to-face, bewailed our misfortune. Fortunately I saw two peasants, who are going on to the same direction. I whispered them and explained them what happened. At the conclusion of our talk they wondered our escape. These fearless brave men drove the animal, making a noise, so our escape was at an end." No wonder that he appeals to his Director for a softer billet. "Please consider, Sir, what shall I do if I did not meet these men? One side I am suffering from such fears, while on the other with sick. Where is my comfort then, Sir? I beg most obediently to release me from one of them."

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From the same report we gather that the Singhalese schoolmaster is liable to let his zeal overrun his discretion. "The head teacher of a large Government vernacular school in the Southern Province, in order that he might better illustrate to his class the principles of elementary anatomy dug up his deceased aunt, hanging her skeleton up to dry in the garden in order to obtain a perfect specimen of a human sketeton. Unfortunately he had not consulted all the poor lady's relations, and one of them, being on bad terms with the teacher, lodged a complaint, which resulted in the teacher being fined Rs. 15, under section 292 of the Ceylon Penal Code, for 'offering indignity to a human corpse.' The accused was warned that he was let off lightly as the judge thought he had done it with the laudable desire to improve the school museum."

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THE PENSIONS BILL.

MR. Fisher's superannuation proposals have so far had a smooth passage through Parliament. Amendments have been moved on the lines suggested in my last communication but these have been withdrawn or substantially modified since there was no desire in any quarter to delay the progress of the Bill at a time when prolonged discussion involved the risk of the measure having to be withdrawn. An amendment in favour of bringing local inspectors and organisers within the

scope of the measure has been met by the proposal that such teachers shall receive a pension in respect of their service in the schools and shall receive a further pension in respect of their service as servants of the local authority. In these cases the superannuation allowance will come from two sources, one to be provided by the present Bill and another to be provided by a Bill which the Local Government Board has undertaken to introduce for the benefit of corporation officials generally. Although this compromise does something to obviate the risk of financial loss in the case of local inspectors and organisers, it is, nevertheless, unsatisfactory in principle since it seems to place outside the category of teachers those men and women who, by reason of their efficiency in the schools are promoted to supervise the work of other teachers. Another amendment was proposed with the object of bringing within the scope of the measure teachers in schools which are privately conducted. In this proposal there were obvious difficulties since the State can hardly be expected to take responsibility for the superannuation of those who are working in schools entirely outside the State's control. Many of us maintain, however, that no school should be permitted to remain outside the control of the State. Those responsible for the best private schools, in common with teachers in state-aided schools, believe that the Board of Education should take steps to abolish all inefficient schools and should exercise a proper measure of supervision over every form of education. Under the Education Act it becomes necessary for the local education authority to take cognizance of all the schools in its district, calling for particulars as to premises, number of pupils and qualifications of staff. It is believed that when these particulars are forthcoming the local authorities will have it in their power to refuse to recognise attendance at inefficient schools as satisfying the requirements of the Education Act. Should this power be exercised, inefficient schools will be compelled to close their doors and the others will be allowed to continue subject to their efficiency being maintained. To ensure the maintenance of their efficiency, it will be necessary to devise a system of inspection which may be worked in such a manner as to leave to the schools the largest possible measure of freedom while affording some guarantee to the public that the education they give is on the right lines. It is evident that teachers working in schools thus inspected and held to be efficient will have a strong claim for consideration in the superannuation scheme although their schools receive no aid from the State. Mr. Fisher proposes to recognise service in such schools, provided always that they are not conducted for private profit and provided also that the resources of the school itself are shown to be inadequate for the furnishing of money to superannuate the teachers. In effect, this means that the private schools as we have known them in the past, that is, schools conducted by a proprietor or proprietors, will be outside the scope of the pensions scheme and it may be expected that such schools will find it increasingly difficult to attract a supply of qualified teachers. Many of them will be compelled to close down, with the result that the Board of Education will find itself compelled to provide for a far greater number of secondary school pupils.

STATE SECONDARY SCHOOLS.

The noteworthy effect of the war in England has been the great increase in the number of pupils in the municipal and county secondary

schools. The Board of Education attributes this to the fact that the all-round increase in wages has enabled many people of the artisan class to give their children the opportunity for further education. It is certain that in many districts the secondary schools are full to overflowing and as soon as peace conditions permit of the building of new schools, a great extension of facilities will be demanded. It is understood also that Mr. Fisher is anxious to provide schools in those districts which have hitherto been very scantily supplied with state-aided secondary education. There is, for example, a large area in the west of England containing very few municipal or county secondary schools. The effect of this coming provision upon the enterprise of proprietary schools is expected to be very serious but those who prophesy the early extinction of all private schools in this country are overlooking an important consideration. It is that where a good system of secondary schools is provided, there tends to develop a subsidiary system of private preparatory schools attended by pupils whose parents do not desire their children to attend the ordinary public elementary school and who realise that some kind of special preparation is necessary if the child is to benefit to the proper extent from the secondary school course. An example of this state of things is to be found in the city of Birmingham where there is probably the finest equipment of secondary school facilities to be found in England. In addition to the great endowed schools, known as King Edward VI High Schools with their associated grammar schools to the number of five or six, there are in Birmingham several municipal secondary schools and a number of others conducted by religious bodies or by private companies. There is, of course, an ample provision of public elementary schools but there are few districts in England which have so great a number of small private schools. Of these the great majority are engaged in preparing pupils for the admission examinations of the secondary schools. Thus, it seems fair to suppose that any extension of secondary school facilities will result in the development of more private schools unless, indeed, steps are taken to make the public elementary school more popular than it is at present with those who can afford to pay a small fee for the early training of their children.

WORKS SCHOOLS.

An interesting development, foreshadowing, and in some degree forestalling, the operations of the Education Act is the establishment of schools for young people in connection with factories and workshops. These institutions are being set up by some of our largest firms of manufacturers, the buildings being provided at their own cost and the schools being maintained, for the present at any rate, without the help of the State. An example is to be found in Bolton, Lancashire, where Messrs. Tootal, Broadhurst, Lee and Company have founded a school for their young workpeople and have appointed as their educational adviser a former Director under a Local Education Authority. This school was recently opened by the President of the Board of Education who said that he welcomed such enterprises and hoped that many other manufacturers would imitate them. In many parts of England the education authorities are bestirring themselves to provide continuation schools and it will be seen that we have here some conflict of principle arising from the question whether the continuation school of the future should be unrelated to the workshop or whether it should form a parallel course

with the pupil's daily employment and be carried on largely under the auspices of his employers. Members of the Labour Party have repeatedly expressed themselves very strongly in favour of separating continuation education entirely from the workshop. They held that works schools will tend to be nothing more than a device for benefiting the employer by increasing the efficiency of his younger workpeople. They declare also that such schools will tend to ignore the liberal or humane element in studies. It is, of course, well-known that the Trade Unions have always been suspicious of the rate-aided technical school and there are instances where no pupil is permitted to enter a technical class in a municipal school of technology unless the local Trade Union officials are satisfied that he is a member of the craft with which the class is dealing. It remains to be seen whether such objections will be held valid after the war. The desire for a liberal element in the continuation school studies is perhaps more to be commended and it is a symptom of the newborn resolve of our working people to have a full share in all the privileges which attach to education. It may be that they are in error in supposing that what they call the "governing class" exercises the function of governing by reason of its educational superiority but they are probably right in supposing that the wider spirit of education in their own ranks will enable them to play a more active part in the conduct of affairs.

DISABLED SOLDIERS AS TEACHERS.

During the past few months a systematic effort has been made to encourage disabled soldiers to offer themselves as teachers. Our Ministry of Labour is preparing a pamphlet setting forth the various opportunities which are open to disabled men returning from the army and such men as are reasonably well-educated are invited to consider the possibility of becoming qualified teachers. The procedure is that the applicants are interviewed by the authorities of a Training College and if the interview is satisfactory, they are allowed to enter the college for a special course of training which will entitle them, when successfully accomplished, to receive a Government Certificate. It is evident that this special course must be almost wholly different from the one usually taken by training college students. In several instances the Universities are undertaking the work and the disabled soldier will be encouraged to pursue the study of some subject or subjects on university lines. At the same time he will attend lectures on the theory of teaching and will have opportunities for school practice under supervision. It is found that a number of the applicants coming forward under this scheme are men of real promise likely to become very valuable recruits to the teaching staff of the country. The certificated teachers already at work in the schools are naturally inclined to watch the experiment very carefully lest it should develop into a plan for granting the Government Certificate to teachers on unduly easy terms, thereby disparaging the value of certificates previously obtained. It is clear, however, that the whole question of the training of teachers is undergoing revision and the latest regulations issued by the Board of Education foreshadow a policy which will lead to the establishment of a new kind of Government Certificate, to be given not simply as the result of one standard course of training, but to be available for teachers of special subjects as well as for those who have been prepared mainly for a general form of work. Such certificates will be of approximately equal standing although differing in kind, for it is coming

to be realised that one set course cannot possibly meet the needs of all the various kinds of teaching work which are now undertaken in our schools.

BOY LABOUR ON FARMS.

Considerable dissatisfaction has been caused in our secondary schools by the failure of our Government Departments to make proper use of the voluntary labour placed at their disposal by the senior pupils. In the early part of the year great efforts were made to encourage boys to offer themselves for work in harvesting, forestry and other operations. Filled with zeal, a large number of boys offered their services and masters undertook to supervise the transport and work of selected parties. In many cases the boys found themselves regarded as something of a nuisance and the arrangements for their housing and supply of food were disgracefully inadequate. Thus, in one instance, a party of boys arrived at a remote spot in the west of England after a journey of 150 miles to find that there was no food at all available and it was several days before the camp could be organised with anything like proper efficiency. Another party journeyed to Scotland by special train, taking up other parties on the way, so that 500 willing helpers reached the point to which they had been directed. At this place, however, it was found that there were no camps ready and in the end they were sent to another district where they spent a fortnight without helping the harvest in any way. Such failures to recognise and encourage the patriotism of our school boys have been very warmly commented upon and no responsibility seems to be acknowledged by any of the Government Departments which, a few months ago, were claiming the credit of formulating the scheme.

THE LATE MR. F. H. DALE.

The Board of Education has suffered a grievous loss by the untimely death of Mr. Frank H. Dale, the Chief Inspector of Public Elementary Schools. Mr. Dale entered the service of the Board after a brilliant career at Oxford where as a scholar of Balliol he had greatly distinguished himself in the study of classics and philosophy. As Chief Inspector he won the regard alike of his colleagues and of the teachers of the country for he was a man of broad sympathies, great zeal for educational progress and untiring energy. The preparation of the Education Bill placed on him a very heavy burden of work and probably brought about the illness which resulted in his death at the early age of 46.

FRANK ROSCOE.

INDIAN EDUCATIONAL PROBLEMS.

THE product of Indian education has long been an object of derision, and the "failed B.A.," a subject for ill-concealed merriment to those whose acquaintance with the type is only superficial. Yet there are few more pathetic individuals than the young man, who year after year appears in the examination hall, only to find two months later that his name is once more not to be read among the list of successful candidates.

As head of a college containing some 350 undergraduates and as a university examiner for more than twenty years, I think I may claim

a slight knowledge at any rate of the Indian college lad, and I must confess to a very real sympathy with the 'failure' and a genuine desire, to see something done that will tend to reduce the present terrible wastage and at the same time raise the standard of learning and efficiency in our schools and universities.

For a long time past the unsatisfactoriness of our higher institutions has become more and more realised, and many and various have been the remedies suggested, yet what would appear to be one of the most obvious seems to have hitherto been to a large extent overlooked.

When, after Macaulay's famous decision in favour of education on western lines, the authorities began to extend facilities for learning in every direction, perhaps the greatest inducement to a young Indian to take advantage of the new system was the prospect of obtaining Government employment. It must be remembered that, in the East, an extraordinary value is attached to service under the ruler, and it is regarded as conferring a dignity altogether disproportionate to the emoluments. Such posts were, and still are, a matter of patronage, but, at the present time, the nominee, in addition to social or other qualifications, has to produce proof of having passed some recognized examination, usually the School Leaving Certificate or the matriculation in the case of junior appointments, and one or other of the various degrees in the case of the higher. As is natural under a system of nomination, very much may depend on the influence, direct or otherwise, which some friend or relative may be able to exert, and, consequently, it is often merely necessary to obtain the magic letters, B.A., to enable a youth to obtain the post he seeks. Hence hundreds of young men flock to our schools and colleges, who are utterly unable to profit really by the instruction received. The class rooms are congested, the better student's chances of a good education are diminished by the need for teaching down to the level of the weaker vessels, while the demands for more and more admissions make the chaos greater than ever. If applicants are turned away, undoubted hardship ensues, as such action virtually means the denial of any hope for Government service. In this connection it must not be forgotten that the private candidate is not encouraged in Indian universities, and the examination results show only too clearly the totally inadequate preparation that this class enjoys.

The present system of nomination is not without its merits. In the first place it is in accordance with the traditional idea of Government as the dispenser of patronage; it enables an officer indirectly to reward long and faithful work by nominating a son to please his father in the service of the state; and it helps to maintain the prestige of those in authority. How far this last is worth the trouble entailed in considering the claims of the various aspirants is a matter for opinion. It is true that, as a dispenser of favours, the Indian civil servant, more especially on the executive side, is regarded with very great consideration, but he has to pay heavily in the importunity which he has to endure in consequence. I was once asked by the then Lieutenant-Governor of the province whether, as Principal of a College, I would like to have the privilege of every year nominating a candidate for a deputy-collectorship. I expressed my thanks for the offer, but respectfully begged that I might be excused the honour, as I foresaw

the difficulties that would arise in making a selection satisfactory to all the various communities and interests.

A reason often urged for the retention of nomination is that it enables Government to reward a good and loyal servant by selecting a son, or near relative, to carry on the family tradition. Undoubtedly it is both wise and just to recognise the merits of those who have done good work for the state, but the result is to narrow the field of selection, and the system tells somewhat hardly on those who do not possess such qualifications. Though it is quite possible that a boy, whose father is a Deputy Collector, may have imbibed, more or less, a flair for similar work, yet, on the other hand, there are often young men, in all respects equally suitable for Government employment, whose family does not happen to have held many public appointments. Such youths are bound to stand a poorer chance, should they find themselves pitted against candidates whose fathers are valued subordinates of the higher officials.

Very soon the 'Reform Scheme,' in some shape or other, will be put into effect, and the nominations will be less and less in the hands of the European. If it is difficult for an Englishman to avoid partiality in selection, it will be still more so for the Indian, and I doubt very much whether the latter would greatly appreciate the privilege. It is extremely difficult in any country when there are well defined sections of society for one who is not an outsider to escape the charge of favouring his own particular party. This has been well seen in Ireland, Austria and elsewhere, and in India the difficulty is, if anything, greater. In the first place it entails, to a certain extent, the exclusion of one's own kith and kin, for a man can hardly use public patronage as a means of advancing his own family, and the only way such could be done would be by mutual accommodation, on the principle "you scratch my back, and I'll scratch yours." The Indian moreover is notoriously suspicious of the motives of his own people. The Englishman seldom has an axe to grind: he is an alien, and it makes but little difference to him whether the Hindu or the Mahomedan, the Brahman or the Kayastha, holds a higher proportion of posts. He selects his candidate, and, on the whole, the public is prepared to accept his nomination. If there is not always perfect satisfaction, there is rarely any accusation of deliberate partiality. But, with their own countrymen, things are different. If a Hindu or a Mahomedan nominates one of his own religion, he is liable to be accused of partisanship; if he selects one from the other side, his own friends twit him with a desire to curry favour. In fact, do what he will, his action is liable to misconstruction. A proportional distribution of posts among the various races and castes is recognized as a necessary evil in India, and it often happens that not the most promising, nor even the second best, candidate can be chosen, but some other less likely, on the ground that his community has not got its full share of 'the loaves and fishes.' Any system of recruitment for the various services must, it is true, take this fact on into consideration, but, so long as it is borne in mind, there would seem to be no great difficulty in devising a method which would combine proportional representation with selection by examination.

In England public examinations have almost entirely taken the place of nomination, in the case of appointments to the various

services, which former method, whatever its merits, was open to very grave objection on the ground of nepotism.

In India it should be possible for a body on the lines of the Civil Service Commissioners to hold examinations for such posts as deputy collectorships and the various grades in the Excise, Police and certain other services. Already the Public Works, Medical, and, to some extent, Educational Departments are recruited in ways which eliminate, to a greater or less extent, the weight of personal influence.

Such a test might be restricted to begin with to candidates who, by social position, family status, character, age and physical condition, are certified as suitable for Government employment. Before being allowed to compete, a boy would be required to obtain a certificate on the following lines:—

- (a) Declaration of age, according to school or college register, (to be known as the official age).
- (b) Conduct certificate from the head of the institution at which he is being educated, or, if reading at home, from a magistrate, or a person of recognised position.
- (c) Fathers' name, caste, and family status, together with such claims as his family may have on account of former service to the state (to be attested by a Magistrate.)
- (d) Medical certificate.
- (e) Riding certificate.

On the completion of the certificate, it should be submitted to the Commissioner, who, if satisfied, would endorse it as conferring on the holder the right to sit for an examination for Government appointments, within certain defined limits. On certain dates examinations would be held, at which those holding the required certificate, and who were between the ages of 19 and 25, would be allowed to compete for vacancies in the various branches of the Public Service. To prevent any community or caste from obtaining more than its fair share of the posts available, so many might be reserved for any particular section, provided that its members attained a certain standard. The Government could, in addition, reserve a few special vacancies to which it could appoint persons of high family or who, for special reasons, it might desire to nominate.

The advantages that would accrue from such a system would be:—

- (i) There being no direct nomination—save in exceptional cases as suggested—officials would be no longer importuned by young men and their relatives, and the former would learn to depend on their own unaided efforts for success.
- (ii) A degree being no longer a *sine qua non*, the demand for lowering educational standards would lose force. Weaker intellects, knowing that a bundle of recommendatory letters would no longer avail them, and further that a degree would, of itself, give no claim to a post, would either turn to other means of earning their livelihood before it was too late, or, if they were still determined to take a college course, would, when they joined an institution for higher education, be more ready to submit to being retained in a junior class until proved fit for promotion.

- (iii) The pressure of numbers would, for a time at any rate, be lessened, and meanwhile the further extension of educational facilities could be considered at leisure.
- (vi) The students in the various classes, if fewer for a time, would presumably be those of higher mental capacity, and in consequence, the standard both of teaching and examining would rise. The weak student would not entirely disappear, but he would cease to have as great an effect on the teaching, and there would no longer be the same necessity to keep the work down to his level. The better intellect would have a chance, and, out of the larger number of really well educated young men, we might reasonably hope to see true learning and scholarship begin to come into its own.
- (v) With the rise in the standard would come a rise in the intellectual outlook, which again should react on the nation as a whole, and tend to produce more leaders of thought and captains of industry, scholars and inventors, idealists and practical men, in India as in other lands.

Whether the views I have put forward will yet receive the support I feel that they might claim I cannot say. When first I advocated something on these lines, some ten years ago, I could get but little sympathy from either the civilian or from fellow educationists, but of late a noticeable change has taken place. More than one ruler of a province, and many senior officials, have told me that they believed there was a good deal to be said for my scheme, while the recent educational report on Bengal by Mr. Hornell, and a recent article in the London "Times" show that others besides myself are beginning to realize the serious effect that the 'Selective System,' as a means of recruiting for the Public Services, has on the advancement of education in India.

WILLIAM JESSE.

THE EDUCATIONAL TREE.

METAPHORS not infrequently prove to be a limitation as well as an aid to thought. In the realm of education this seems to have been the case with regard to the idea of "an educational ladder." Advancing thought finds it necessary to change its metaphors. The conception of an educational ladder has implied in the minds of so many educationists the opportunity of passing, on a basis of proved merit and without any arbitrary hindrance, from a school even of the most elementary type up to the University. The two most important implications here are undoubtedly (1) that effort is required to climb the ladder, and that various individuals may come to a halt at different stages upward, and (2) that there should be a free opportunity for all, as far as the State is concerned with the organisation of the lower and the higher educational institutions. The defective aspect of the metaphor is that it suggests just one straight way upwards. In practical organisation this has led, for example, to the secondary school being dominated by the idea that its chief object is to prepare its pupils for the entrance examination to the University. If a University were a wide comprehensive institution

preparing persons for the higher appointments in all the branches of social work requiring education, this would not matter : but the painful fact is evident, that most of our Universities are nothing of the sort.

It is proposed, therefore, to adopt the metaphor of "an educational tree." The distinction from the discarded metaphor is clear. Commencing from a point at a moderate distance from the root, branches, stretching out in a variety of directions, start out at different heights up the stem. The main stem supplies the needs of all in part. The educational system should be systematically of this type also. It should start from a common root : and it should throb with a common life. The questions which the educationalist needs to discuss are : (1). The nature of the education to be given before any differentiation into branches occurs ; (2) The points at which branches should start out ; and (3) The nature of the education in the different branches.

Before taking up the discussion of these questions in detail, it may be well to re-iterate the demands of a modern democratic conception of education, in elaboration of the suggestion of free opportunity implied in the earlier metaphor. The modern State is no more justified in assuming a different attitude towards the children of one class from that assumed to another, than it is in treating individuals differently as voters. Equality of educational opportunity is a correlate of equality of political franchise. The truly democratic State will say : Whatever the means the parents may have to provide for the needs of the child whether much or whether little, a certain standard is required for food, clothing, and education, and the State will see that this is attained for all. Starting from this point of view, the further demand must be made that mere prestige or wealth of the parent shall not be a means by which particular individuals may be "lifted" on to or helped along particular branches. As a master in two Public Schools and one old established Grammar School, I had sufficient practical experience to convince me that at least a third, but more probably a half, of the pupils with whom I came into contact, ought not to have been there, and would not have been there had it not been for the pecuniary circumstances of the parents. Some close association with Elementary Schools also supplied me with adequate evidence of boys who were prevented from further scope for their intellectual ability solely by the poverty of their parents. In recent years in England, by municipal and county scholarships, a small percentage of the latter cases have been provided for. So far, however, there seems to have been no step taken to save the schools from the burden of trying to educate along their particular lines those who have shown themselves unfit for such education. It is in this direction that the consideration of the idea of an educational tree might help.

Properly to appreciate the character of the following proposals, it is well to consider why well-to-do parents desire to keep their children in such schools. The main reason, over and above all questions of social contact, is that they might eventually enter upon some form of occupation regarded socially as superior to skilled or unskilled manual labour, and, as so regarded, bringing a higher rate of remuneration and a better "social position." Here, therefore, we are in need of a genuine revolution in our way of looking at things. If we would frankly own and act upon it that dignity of character, fineness of personality, is the only genuine basis for respect, then the mechanic may be a man to be respected

equally with, not infrequently more than the banker—or even the cleric. Once we educate our pupils utterly to abhor the *£. s. d.* standard of evaluation of men, and to champion vigorously the recognition of real moral merit, one barrier to social progress will be removed. Together with the desire not to lose a position of respect is also the fear of otherwise not being able to obtain sufficient remuneration by a different type of occupation to live at a good standard. So again, democratically we have to come to admit that the manual labourer, skilled or unskilled, and the mere clerk, may rightly claim and should obtain a livelihood as good as those working in professional and other spheres. All men who honestly do their best deserve an equal opportunity for a high type of life. The democratic State will have to do all in its power to ensure this.

The first of the three practical questions raised above concerns the type of education to be given to children previous to any divergence along different branches. The answer to this will depend in part upon the answer to the second question, as to the age when such divergence should begin. The proposal with regard to this latter may, therefore, be best given at once. In cool climates the age should be about a year or a little more after the age at which puberty usually occurs. In hot climates, where puberty begins much earlier, the age should be about two or three years after. The reason for this is chiefly that during the early years of adolescence there is an increase in mental activity and emotional fervour accompanying the physical changes. In consequence, as early as possible after the beginning of adolescence is the best period for endeavouring to turn the current of latent energy (becoming active) into specific channels, or, to use our metaphor, along particular branches of the educational tree.

The education in the first period up to this stage will be more or less common to all, establishing a basis for later developments for social usefulness and personal culture. It will thus include:* (1). The training of the body to obtain and retain physical health and growth; and simple instruction in the principles and facts relating to good physical health; (2). Moral training in habits of obedience, honesty, diligence, truthfulness, etc., and the necessary corresponding instruction; (3). Training, in the means to obtain knowledge, and instruction in the more general facts and laws concerning the physical and social environment, and in the history and literatures of various peoples; (4). Guidance and encouragement in the enjoyment and appreciation of the beautiful in its different forms, as music, vocal and instrumental; pictures; sculptures; eurhythmics, and the dramatic, and (5). Instruction in the main principles and participation in some of the practices of religion.

For the discussion of the idea of an educational tree the third of the above questions is the most important: the nature of the education in the different branches. As education organised by the State is predominantly for social ends, the character of these different branches must be determined carefully in accordance with the needs of the State. Individual wishes and desires have here to take second place. Thus, no particular individual, whatever his "social" connections, should be allowed to try to go along any branches of education for which he is

* For more detail see the previous paper on "The Aims of Education" in the issue, January, 1918.

manifestly unfit. Further, the number of those admitted into State educational institutions of any and every type should depend not upon the caprice of individuals wishing to enter, but upon the requirements of the society.*

Let us consider a few typical examples. If the actuaries of the insurance companies can work out their tables of the average probable duration of life, it ought to be even easier for a calculation to be made as to how many medical practitioners are approximately necessary for a nation of known size and distribution of population in normal conditions of health and disease. Similar statistics might be compiled as to the relative numbers of persons engaged in the educational services, in civil administration, in connection with the law, local civil engineering, and so on. The provision of the institutions for the different branches of education should be based upon such a careful consideration of statistics. The relative proportions for the various needs having been approximately settled, candidates only in such proportions should be admitted into the particular institutions. The choice of candidates will be determined by (a) the inclination of the pupil, and (b) his position in the examination for entrance into the institution.

Suppose that at the end of the first period—that of general education—a pupil fails to pass the test for pursuing a higher course. He then, as far as possible according to his own inclination, but only in conformity with national requirements, passes into some type of occupation, not demanding special knowledge, and in which any mechanical skill might be best learned in actual practice. This is no degradation, but the recognition by the State that thus the particular person is most valuable. He ought, therefore, to be at no pecuniary disadvantage—unless he wastes his time.

Another pupil passes the test for pursuing a high course. He will pass then into one of two types of Secondary School: (a) Scientific and technical; or (b) Humanistic or literary, again according to the special capacity he shows, his own inclination, and social needs; the first and the last conditions taking precedence in the eyes of the State. At certain stages according to the training to be taken up the pupils will pass out from these schools to the University or to the various professional and other training departments representing branches of the educational tree. *At each stage and for each profession systematic selection is to be made.* In recognising the true nature of the educational tree educationalists might influence educational organisation in the direction of the provision of diverse branches to accommodate the capacities of the individuals and the requirements of the social development.

There will be many who will utterly oppose the ideas expressed above: they will be chiefly those who fear that in such a system they—or their children—might not secure the positions they desire. They will

* Recently I suggested to the University of Bombay Visitors to the affiliated Colleges that in order to meet the too great predominance of Arts over Science students, the Colleges should refuse to admit any more than a certain percentage of Arts men. Similarly, in order to counteract the tendency of men to take up History in such large numbers, a limit should be set to the number admitted into classes. The reply was that the suggestion would not be heard of! Surely, a University ought to be able to show some independence over against unreflective public opinion. If my suggestion is, however, wrong in principle, (viewing education socially), I shall be glad to be instructed as to my error.

talk of the "State interference with the liberty of the individual," forgetful of the slavery to manual occupation of thousands of those of the poorer classes, whose effort and higher capacity has been suppressed by our existent organisation.

ALBAN G. WIDGERY.

RELIGIOUS EDUCATION.

MUCH has been said and written about the need of religious education in schools, but little that is practical has been arrived at. The following may help to make clear some aspects of the problem :—

The problem is this ; given the desirability of religious instruction, is it possible to devise a generally acceptable form of instruction for schools wherein the pupils belong to various religions ?

Two solutions are possible ; we may either arrange for special classes to be taught by professors of the various religions, or we may try to inculcate what is common to them all and be content with that. The first course is undesirable, first because it destroys the unity of the school, and secondly because it makes religion one subject among others in the school curriculum, and the religious sentiment cannot be successfully cultivated in this way. Religion must rather form part of the general atmosphere of the school, and must not be made matter of direct study, if we wish to preserve it from becoming an object of dislike to the pupils.

We may define the religious sentiment as a temper of mind which leads the possessor to refer his activities to a Being who governs the world, and to judge of the consonance of these activities with his idea of what that Being demands.

From the point of view of the educationist, a cultivation of the religious sentiment is desirable on the following grounds. All knowledge and exercise of thought tend to unity ; it is desirable that there should be present to the mind of the student a conception of a unity in which all knowledge and all science may find their final and supreme ground, and such unity must be conceived to include, not only what is known, but also the greater sphere of the problematical beyond. On the intellectual side therefore, religion supplies the ideal of a perfect knowledge and reason. No form of polytheism satisfies this requirement. On the moral side religion is desirable as giving a final sanction to the moral law, transferring it from the realm of the transitory and changeable to the realm of ultimate being, conferring upon it a nobility which it would otherwise lack, and raising it above man's varying, conflicting and imperfect expressions of it. It follows that from an educational point of view, as also from the point of view of practical men striving for betterment in the true sense, it is not desirable to inculcate or to perpetuate views or practices of religion which are in conflict with educational aims. Education is a science guided by recognised laws, and the educationist wants religion as contributory to his endeavours to make men better and wiser, and as emphasizing the highest ideals of life ; if it does not serve this purpose, it has no value for him. We are outgrowing the time when religion could be thought to be something independent of the life which is lived,

When we ask what conception of God fulfils the above requirement, and what form the religious sentiment must take, the answer readily suggests itself. God must be looked upon as one, the supreme reason and the supreme good, and as one containing within Himself power of response to personality as we know it. Whether He works by and through law, as we are now disposed to believe, or by more direct and occasionalist methods, He must actually govern. However much goodness and holiness in God may transcend human conception of holiness, He must be righteous as man understands righteousness, or the moral sentiment in man is undermined. The highest moral principle man knows is the principle of love, and if God be conceived as inferior to man in this regard, He is inferior to the best and therefore no fitting object of reverence and adoration.

Can a workable plan be formed on this basis ?

Clearly enough, simple as the principle seems to be when thus stated, it is of immense range and power, and the presence of a corresponding sentiment in the school life would be of great practical value and furnish much, if not all, that those require who wish to see religion recognised.

When we approach religion from the theoretical side, the confusion seems to be too great for resolution. So varied is the dress in which different peoples have clothed their religious ideas, that these seem to be much more dissimilar than they really are. The Christian adds much to the conception given, but it is still the foundation of his religion ; the Parsee expresses himself in his own way, but his thought is but little removed from it ; the Mahomedan conception of Allah is every similar, although perhaps it is true to say that the idea of power somewhat overshadows the idea of that which determines the exercise of power ; the Hindu super-imposes a philosophy of abstract being upon the conception of God stated above and, by so doing, seems to deprive the conception of its practical worth, but there is much in his religious life which shows that it is of great influence. The follower of each religion might complain that what we have suggested is insufficient, but he could not justly object that it was not in accordance with the aims of his religion or unessential to it.

Experience of actual conditions gives the same answer. If a search be instituted for what is active and valuable in the life of an enlightened follower of any religion, a search made with eyes quick to discriminate between the traditional and fortuitous and the vital and essential, the same general agreement is found. It is possible to be almost confident that the encouragement of the religious sentiment defined would evoke little opposition from the sincere of any religion. When all is said, the ideas which give value and vitality to the terms, Parameshwar, Allah, Ormuzd and God are not very diverse, and no philosophy has been able to overcome the human tendency to conceive of God as one with whom personal relations are possible, and this conception lies at the root of all prayer and reverence.

Assuming then that the religious sentiment defined could be inculcated, and that it would be possible for all to acquiesce in its cultivation, we have to ask, How should we proceed ? As we have said above, direct lessons on the subject of religion are very apt to fail altogether of their purpose, and we do not desire to see religious instruction made a part of

the regular curriculum in a way to put it on a level with other irksome studies. Religion is not a matter of the intellect but of the emotions, a sentiment and not a science, and it is to be cultivated by example and personal influence tactfully applied, rather than by lessons with a place in the regulation time-table. To teach religion the preceptor must be a religious man, and a religious teacher will always exercise a religious influence ; if he is not religious all his teaching will be tainted with insincerity, and in the religious sphere insincerity is not to be tolerated.

Our own experience is that there is much more religion in our schools than is generally supposed, and that there is not more of it, is not due to failure to teach it directly, or to adverse influences in the school itself, where it finds considerable expression in the literature text-books, but to the absence of strong religious feelings of the kind required in the public heart. It is to be suspected that the demand for religious instruction, at least in part, comes from those who find their children shaking themselves free from many traditional observances which have lost their meaning and spiritual value, observances which education everywhere tends to destroy. Children cannot learn the right use of reason and at the same time retain their respect for what is passing away, because it contradicts basic logical laws. The fact of the matter is, that he who wishes to do so may even now speak of the simple sort of religion we define without offence, and there is nothing to prevent private schools from following this policy. If the teacher goes further, he finds himself in the domain of controversy and does harm rather than good. The simple religion we have suggested will supply what is needed, and will keep alive the desired sentiment, and it will be naturally and automatically acquired by the pupils, if the school atmosphere is what it should be. It has always to be remembered that learning about religion is by no means equivalent to a cultivation of the religious sentiment.

What is chiefly required is a deeper religious spirit outside the schools, a spirit which will naturally manifest itself in the lives of the teachers. Where the homes of the children exhibit a religion which gives brightness, consistency and a moral purpose to life, the schools will not destroy it, and much of the school work tends to support it, but we cannot expect children to reverence and value what is by their parents, practically ignored. The maxim, "Do as I tell you and not as I do" is of very feeble utility.

It is probable that Hindus will find it more difficult to reach a satisfactory solution of the religious difficulty than will others, because the situation in their case is badly complicated. The thoughtful and the enlightened, in the main, desire something of the character specified, but Hinduism is taken as a whole, and contains within itself differences more vital than those which separate some of the other religions from one another. A thoughtful Hindu who wishes to cultivate a religious spirit in his children is heavily handicapped by identification of what he teaches with much that children learn to despise as trivial or meaningless, and the scorn they learn is carried beyond its legitimate object.

Within the schools we must mainly depend upon the personal influence and example of the teachers. This might be supplemented by simple prayers at the beginning and end of the day's work, and by occasional gatherings where a hymn or two might be sung, a few prayers could be said and a short exhortation given ; it should be possible to do this

in a way to be acceptable to all. The main things to be guarded against are anything of the nature of irreverence or insincerity and the danger of making such exercises familiar or irksome, and thus of weakening their appeal to the feelings of the pupils.

THE TEACHING OF POETRY.

ONE of the defects of Indian Schools is the mishandling of poetry and the teaching of it is as defective as the students' understanding of it. Perhaps this is due to the fact that English is a language foreign to the teachers. But even making due allowance for this, it must be admitted that the teaching of poetry suffers much from indifference on the part of teachers. They hardly realise the value of poetry. It is so many lines to be learnt by heart, so many to be read, and parsed and analysed and paraphrased for the purpose of the eternal examination. There is no loftier motive, no ideal sought or pursued. Perhaps the mercantile spirit of the age we live in is responsible for this as it is for so many other defects. But all lovers of education should try to remove the defects they find in educational methods.

Poetry ought to occupy a very high place in the curriculum of schools and even higher in the heart of its teachers. It is one of the best, and though difficult, the surest way of reaching the depths of a pupil's heart. For its appeals are to imagination. And what cannot imagination do for a child. Every child if properly handled, is a poet in bud full of imagination. The cultivation of this imagination, and the culture of the purer emotions of the heart it is the purpose of poetry-teaching to accomplish.

In all true teaching of poetry therefore the appeal must always be to the imagination and to the emotions. It is good to be able to analyse and paraphrase and explain intricate pieces; but it is better to feel what the poet has felt. To feel as the poet has felt is indeed a difficult task, but one worth attempting.

For this purpose it is not necessary that every word should be understood or correctly parsed. The idea needs to be understood and so understood that the pupil is able to visualise it. To help such an understanding the teacher should first fix the attention of the learners upon the idea not upon mere words. Honest efforts in this direction will reveal the fact that this method of doing the work even helps the work of "other-wording" the piece. The main outlines of a poem are indeed taken in more easily than is supposed. When a teacher reads a piece in the proper way, with understanding and the proper intonations and the necessary gestures the learners readily pick up the idea. If this is followed by a few questions regarding the main points the outline will be fixed in the mind. The study of details will come last. The laborious process of giving other words will be rendered easier, for the boys will be able with a little help to find out the meanings of difficult words for themselves.

The method ordinarily followed is a topsy-turvey method. It begins by giving 'other words' and ends by paraphrase which rises to no higher level than mere word substitution. It is sometimes followed by memorising. This memorising is nothing more than a dull repetition of line

after line of so many lines of poetry ; whereas it ought to be the natural result of thoroughly mastering a poem. A student who repeats one hundred lines of poetry will often fail to answer such a question as this : What does the writer say about ?

Let us take an illustration. Mrs. Heman's 'Casabianca' is often read with the fourth standard class. Instead of taking one stanza after another, and giving other words, if the teacher reads the poem aloud in the proper way, and then puts to the class some such questions as these, What is the poem about ? Where was the boy standing ? Who told him to stand there ? Why did he not run away like others ? What was his fate ? the main outline of the poem would be fixed in the minds of the students. To understand the poem as a whole it is not necessary for a boy to know what part of a ship is called a deck, what is 'a wreck,' what is the difference between 'childlike' and 'childish' and so on. The images of the picture may then be developed gradually as presented in the different stanzas. Difficult words may now be explained—but as far as possible the boys must be helped to the understanding of the meaning with the help of the content before another word is given.

If the work is done in this way it will be found that images such as "looked from that lone post of death in still yet brave despair," will have been, before the poem is completed, so fixed in the minds of the boys that such lines or groups of words will automatically have been memorised. One of the values of poetry is that it furnishes the reader with a choice vocabulary and a delicacy of expression which unconsciously become a part of the language of the reader. If we examine the language of good writers what do we find ? How much of the masters enters into their vocabulary ? In our own limited spheres what do we do ? We quote and quote unconsciously. The language of the authors we master becomes part of ourselves and without knowing it we reproduce him after. This is an ideal worth achieving and the ideal which the teacher of poetry ought to keep before himself. No amount of unintelligent memorising will help the attainment of this ideal. A little more intelligent appreciation of poetry than is ordinarily made possible in the class rooms of our schools will insure its attainment.

It may be that something will be left out in proceeding thus. But as a writer has somewhere said, "We cannot both parse John Milton and read him. If grammar is more than literature let the latter go to the wall." Not a few of us have a distinct recollection of some poetic classic belittled to us. How our teachers laboured to dissect it into the nine parts of speech ! How hard they tried to make every syllable of it intelligible to us ! How much time and energy were wasted on the roots while the beauty of the trees—to say nothing of the forest—was never brought home to us ! How completely we mixed the soul in anatomising the body.

Let us remember that all true poetry is illusive, and this constitutes one of its charms. Over much of explanation serves to cheapen it. It stunts the imagination. It leaves nothing for the boys to do themselves and thus engenders in them a habit which afterwards becomes one of the greatest of disqualifications for fighting the battle of life. If the moulding of manhood is one of the objects of education, nay the chief, let Indian school masters appeal while teaching poetry to the imagination and to the finer emotions of their students and let them

cease to pay overmuch attention to parsing and analysis and word derivation and substitution. Grammatical dissection must give place to intelligent appreciation.

There is one further suggestion I should like to make before concluding. The aid of drawing may be called in especially as drawing is now taught in secondary schools right up to the sixth standard. When reading descriptive poetry the boys might be asked to see if they could reproduce with the brush what the poet has portrayed with his pen. It will be found that if the pieces are well understood the boys will like this work and do it better than we might at first sight suppose. Accuracy of details need not be insisted upon. Boys will take to such reproduction with pleasure. It will do them more good than the mechanical collection of pictures for an album. To try to reproduce, say 'Alice Fell', thus, and to succeed in doing so gives them more genuine pleasure and real training than the disfiguring of text-books by cutting out pictures to be pasted into a book pompously named the Geographical Album.

V. H. MEHTA.

EFFICIENCY FOR TEACHERS.

A VERY intelligent friend after expressing his approval of certain liberal reforms calculated materially to better the status of the teaching profession, suddenly changed to a disconcerting tone: "All that you say is very good, but the average member of the profession whom one meets is so dull and so inactive as to inspire no attempt to raise the status of his profession." The remark is not without truth. There is frequent talk about the improvement of the teacher's status but little about raising the average efficiency of the teacher.

It has often been said that teaching is a noble profession. The ground of this belief is probably that it is an independent profession. A teacher expects to have less interference in his duties from outside than members of any other profession experience. Such freedom is not without pitfalls. A teacher's duties are so manifold and so subtle and so reflective of his own individual personality that an excess of external direction cannot but prove a blunder. Still, to be practically exempt from over-seeing, not to be liable to detection in failure to discharge legitimate duties, and to reproof when reproof may be necessary and useful, provides temptations often fatal to professional honesty and character. A dishonest teacher is the worst of all educational evils because his dishonesty is certain to infect the youth that come under his influence.

The late editor of *Indian Education*, once wrote: "We were lately asked how far headmasters should trust their subordinates. No system can afford to work by trust. Any system that pretends to do so is a sham, and a sham that will soon lead to neglect of duties. Every system should say openly that it provides means for detecting and punishing offenders, and there is no reason why the details of the system should be known to the rank and file. The Post Office, for instance, is continually sending out test letters to watch whether postmen and clerks do their duties and these are not told when and where to look out for such letters. If it is not possible to control men effectively over some detail then they

must be trusted—but it is as well that such details should be few." This implies that some degree of control and supervision are necessary in every profession. Let us look at some other professions and draw the relevant lessons from them.

The profession of the law has to be practised in the full gaze of the public eye. All law courts have visitors' galleries for the use of the public. Lawyers are exposed to severe criticism and only the fittest survive. On their reputation for professional ability directly depends whether they cease to have clients or have them in ever-increasing numbers and with fat purses to pay from. This makes for the strength and the glory of the law as a profession. The conditions in the teaching profession are not quite similar. There is a possibility of the dullard and the genius, the ass and the horse being indiscriminately yoked together in the teaching profession. There are no critical public galleries in class-rooms. The professional reputations of teachers do not directly affect the rewards they get in life. As Stephen Leacock points out in a brilliant essay on "The lot of the school-master", the "trouble springs from the teacher's salary. It is too high. There it is, a hundred dollars a month let us say, dead certain—no doubt and no delay about it. A lawyer makes (on the average and apart from exceptional cases) a few hundred dollars in his first years, perhaps not that; a young doctor makes on the average, something more than nothing; he walks hospitals, wears a white linen coat and says that his chief interest is in pathology; but what he really wants is a practice, and after waiting a few years he gets it. These, and their like, the young engineer, lead a struggling life, subsisting on little, lying much and hoping very greatly. Meantime, the bovine teacher in his stall is as well paid at twenty-three as he will be at forty." Bad teachers do not starve as often as bad lawyers and good teachers rarely or never win the great rewards that fall to good lawyers. As Leacock says: "The insane idea is abroad that a young teacher, a mere beginner, is as good or practically so as a man of experience. No difference is made: or none that corresponds at all with the vast gulf that lies in every other profession between the tried and successful man and the youth who is only beginning" The essential weakness of the teaching profession then is that it offers no stimulus to professional efficiency. In some of the western universities where considerable freedom is permitted to undergraduates in the choice of the subjects of their study, the lecturers and professors get their emoluments in the measure of their reputations. Admission to their lectures is by ticket for which the undergraduates pay money that goes to enrich the lecturer. Though such a system might seem too commercial for general acceptance it suggests a way of placing the teaching profession on a footing similar to that of other professions like the law and the medical profession.

At the present time when there is a show of enthusiasm on the part of the public to raise the status of the teaching profession, it is desirable that its members should exert themselves to improve their own quality. It ought to be the foremost task at teachers' conferences to make intelligent analyses of the duties and responsibilities of the profession and to supply the members with direct stimulus to fulfil them in the most glorious way.

Honest and lucid and successful advocacy, able cross-examination, ready resourcefulness, tact in court,—such are words with definite

concepts by which a lawyer's merits can be more or less definitely stated. Though a mass of hair-splitting pedagogical literature and elaborate institutions of pedagogy exist there are no approved and generally known tests according to which the quality of members of the teaching profession and the success or failure of their work can be judged. In an admirable essay on teaching as a profession Mr. Frank Roscoe states the two essential requisites for a true profession. There should exist "a body of scientific principles as the foundation of the work and the exercise of some measure of control by the profession itself in regard to the qualifications of those who seek to enter its ranks." In this connection we may also pause to consider the system of training teachers that has hitherto been prevalent. It has largely failed in its results. Attending lectures on psychology and teaching methods and hearing a course of demonstration lessons, even giving a few himself, cannot make a teacher. To quote Mr. Roscoe again, the only sound method will be when "the young teacher is required to spend his first year in a school where the headmaster and one or more members of the regular staff are qualified to guide his early efforts and to establish the necessary link between his knowledge of theory and his requirements in practice."

Let us consider here some of the conditions of the teaching profession whose effect on the maintenance of its efficiency is not perhaps always recognised. The profession has only limited hours of work and enjoys many holidays in the year. In colleges the staff have but a few hours of lecturing every day. All this implies only a heavier responsibility on the part of the members of the teaching profession. It argues the teacher's need to intensify the character of his work. A mercenary teacher who will earn his emoluments with the barest minimum of effort is contemptible. The true teacher loves his students and will not grudge attention to their needs whenever demand is made of him. The work of the classroom is the best part of the teacher's work but a teacher who has energy worth the name strives to keep in contact with his pupils outside the class-room also.

The teacher is a true parent of the students. His home should be open to them and serve as a source of inspiration and of ideals of life. The students should see and be privileged to use his copious library and other apparatus of his work, and conversation with him in his home should be their most valued entertainment. The teacher's life should be exemplary in all details, for he has the opportunity of holding out an example to others. He should be a model of punctuality and never spare pains to fulfil his obligations in the class-room. In Leacock's words, "the ideal school-master has got to be the kind of man who can instinctively lead his fellow-men (men are only grown-up boys, and boys are only undamaged men); who can inspire them to do what he says, because they want to be like him, who can kindle and keep alight in a boy's heart a determination to make of himself something that counts, to build up in himself every ounce of bodily strength and mental power and moral worth for which he has the capacity."

It is a subtle task to be able to choose a good teacher. University degrees help but a little. A high degree may indicate a respectable minimum of learning. Even with a less degree a teacher may possess profounder knowledge. The greatest secret of the teacher is his facility of expression, the capacity of clear and effective exposition.

For any profession to rise in dignity, efficiency is the first essential, and can be promoted only by the effort of its own leading members. A steady and exact eye on his duties and responsibilities is the first qualification of a teacher. The *ablest members* of the profession can perhaps together evolve reliable standards for testing the teacher's efficiency. When the generous lay world deals out greater rewards to the members of the teaching profession it has a right to demand also a rigorous standard of efficiency in them. If the lay world errs in being over-liberal, no harm will be done but the teachers in their turn should remember that they cannot pitch too high the standard of their efficiency.

P. R. KRISHNASWAMI.

HYGIENE AND SCHOOL-LIFE.

IT speaks much for the progress of education in this country that physiology and hygiene have been definitely included in the school-curriculum. In those "innocent" old days when education was left to itself to drift whither it would, when botany with its long string of soul-killing Latin names was hammered into the heads of youths, when a list of dead dates from history and dry, because unreal, names in geography were impressed on tender minds by strokes of the cane, simple truths about the building of the body and its close relation to the mind, simple rules of health and hygiene were severely left to themselves. While we regret the death of some of the old useful methods of education—which instilled into the mind patience, perseverance and self-reliance, and which strengthened indirectly its power of *retention*, we cannot but admit and admit with pleasure that education has now been treated as a real science having its own axioms, its own rules and requiring research just like any other branch. Education has made wonderful progress, because it has been rationalised, because it has been made scientific. The new spirit of scientific inquiry which pervades the whole intellectual atmosphere has given this branch a new aspect and a new importance. The scholar is now considered by the educationist much as a plant by a botanist. The development of every one of his functions is sought—not the intellectual alone as in the past but the moral and the physical as well. All the faults that were formerly laid mainly at the door of the scholar are now after an inquiry sought to be distributed between the faulty methods of an unsympathetic and sullen "knight of chalk and duster", the unfavourable conditions of the scholar's life and his imperfect mental development. The science of education now seeks to study the child-mind first and then to develop it according to its own requirements. It has been recognised, thanks to the scientific study of education, that individuals require different treatment according to their development much as different plants. It has been recognised that real education requires thoroughly trained men instead of the semi-educated and half-starved ushers of former times. Whatever the status of the teacher, it has been recognised that on the teacher depends ultimately the well-being of the nation. All modern progress is principally due to the fierce search-light of scientific inquiry which is illumining even the dark corners of the edifice of education.

The object of the present article is not to laud education to the skies (that has been done by many, hundreds of times), nor to appeal to the

public to take the teacher more kindly under its wings (that cannot be done by mere articles) but to show that while we have advanced along the right lines by systematising and rationalising education, we are still unwilling to purge from school life some of our old unscientific habits ; to show that while physiology and hygiene have been introduced into the school curriculum under the beneficent influence of science, our school system has still some drawbacks which clearly go against the teachings of these two subjects ; to show that while we teach children rules good to follow, some features of our school-life clearly make their observance difficult or impossible.

Leaving generalities and coming down to particulars, physiology and hygiene are taught to the pupils of the fourth and fifth standards probably in all the high schools of the Bombay Presidency. Hygiene in the school-course is looked upon as more important than physiology. Physiology—a knowledge of some of the vital processes of the human body—is considered and rightly only as a handmaid to hygiene. To the school-boy indeed a few rules of hygiene not dogmatically given but scientifically deduced from the lessons of physiology are more important than a mere knowledge, however detailed, of all the processes in the human body. So generally a clear relation between mind and body, between health and the important functions of certain organs, is placed before the boy, the object being to convince him that rules of health are dictated not arbitrarily as is sometimes done in human affairs but as an outcome and a logical outcome of an intelligent appreciation of man as an organism.

Let us consider now how some rules of hygiene are set at naught by the somewhat inelastic school life of the present day. Now physiology and hygiene alike demand that there shall be rest after a full meal. The reason is plain—all the available nerve-power is turned by nature towards the digestive apparatus. So we teach the rule—Take some rest after meals. Yet how often our school system breaks it ! School work generally begins after a full meal at 11 or 11-30 a.m. Owing to this vicious system how many youths are a prey to diseases severe and minor ! How many youths day after day gulp down a hasty apology for a meal and run to school with an overtaken stomach ! How many by their persistent hurry nurture in their bodies seeds of future ills. An old teacher in our midst who has served in the educational department for 30 years once pathetically complained to me that in his active school-work he never enjoyed a good meal in his life. Once, the late Mr. Sharp asked a class in a certain school which was the happiest hour in a boy's life. He received various answers. "When reading," said one. "When praying," said another. "When sleeping," a third. "During dreams," said a fourth. "No," retorted Mr. Sharp, "when eating." Yes, the happiest hour in a boy's life is "when eating." He really enjoys or should enjoy his meals most. Yet the school by beginning its work after a meal prevents him from spending one of the happiest moments of a boy's life.

That is an ideal school which arranges work strictly according to the rules of hygiene and the dictates of common sense. It is a maxim not contradicted by any that the greater part of the work should be done before meals. The morning when the brain is fresh and active is the best alike to the labourer in the field and the labourer in the class-room. It would be perfectly in keeping with the old traditions of India to begin

work in the morning. It is common knowledge that the old guru, whose merits we have now learnt to sing, began his classes early, even before sunrise. Allowing for the changed conditions of modern life why should not the school open at 7-30 or so in the morning and close at 10 or so? The student then would go to school active and cheerful and return home to enjoy his meals after earnest mental work. The studies may commence again at 1-30 or so and close at 3-30 p.m. for the day. According to this scheme, a boy would do most of his work in the morning, have plenty of time for his meals and be in a position to begin work again in the afternoon. The school would close early so as to enable him to return home for light refreshment and go with added vigour to enjoy his games.

The school according to the present system by closing at 5 or 5-30 in the evening practically forces boys to play games on an empty stomach, just at the times when their energies ought to be recouped by some light repast. Here then is the irony. They have to begin work after a full meal when nature demands rest and have to play after exhausting work without any refreshment. Of course, the school does not compel boys to play immediately after studies but by closing late in the evening it prevents them from going home and returning to the play-ground.

Whether a hard game immediately after hard brain work really relieves the mental strain is yet to be proved. The promptings of nature, and it is best to consult her in difficulties, seem to suggest that some kind of light food is required in order to make up the exhausted nerve force.

Thus is another rule of Hygiene disregarded by the school routine.

If we scan the time-table of any school, we shall find that drill and other physical exercises often are gone through between two periods of school-work. The result is that boys rush in from outside into their respective class-rooms streaming with perspiration. No greater source of danger to health can be readily imagined than sitting in a state of profuse perspiration in rooms through which the wind is playing. Prof. Muller, the famous physical culturist of Denmark, remarks in his book "My System" that thousands of soldiers have died from inflammation of the lungs or have contracted the germs of other diseases by neglecting to rub themselves down after sweat-inducing exercises. If drill and gymnastics are to be gone through, why not at the end of the school period? If not, why not insist on boys rubbing themselves dry before they resume their studies? Yet how invariably in most schools is this golden rule broken? The writer has seen boys of a well-known school in Bombay playing in the hot sun during the recess and dispersing themselves quickly to their rooms at the warning bell. To do the school justice this practice is quite common in others also in Bombay. Fortunately outside the metropolis the scene of hot perspiring youths quenching their thirst with iced drinks is rare—not because boys in the mofussil are wiser than their young brethren in Bombay but because iced drinks cannot be procured conveniently. Certainly every boy would shrink from doing so if he were warned that is almost suicidal to resort to cold drinks when the body is giving off perspiration.

The importance of the skin to the general well-being of the body is not sufficiently recognised. It is one of the most important organs—as vital as any other. It is through the skin that the body cleanses itself by throwing off obnoxious matter. And it is as true to say that we

breathe through it as that we breathe through the nose. The perspiration that the skin throws out is due to the effort made by nature to cleanse the inner organs in the rapidest way. Its absorption only causes the pores to be clogged and incidentally to disturb the equable temperature of the body—to the detriment of the general health.

Thus is hygiene again thrown to the winds by the school authorities either arranging the drill period between two working ones or neglecting to see that every boy rubs himself thoroughly dry before entering his class-room.

Every one knows that it is dangerous to sit in wet clothes. The reason is that the external moisture lowers the temperature of the body and gives rise to colds, chills, etc., which often develop into more serious diseases. Now it is a common sight, especially in districts having heavy rainfall, to see boys arriving at school with their clothes drenched with rain. All know that the school discipline requires them to wear coats in the class. The regrettable thing is that this rule is not relaxed in the circumstances mentioned. Why not allow them to sit with their wet coats off? Why not base discipline and decorum on common sense and provide *sigris* for drying the clothes? Granting that responsibility for protecting children from the weather rests primarily with the parents, yet poverty or accident may defeat the care of the best parents and the school authorities cannot deny their share of responsibility? As things stand at present, there is a longer list of absentees from sickness during the monsoons than in any other season.

Similarly official decorum requires teachers to wear turbans (a nuisance if worn for a long time) even during the hot weather. Principal Fraser supported the idea that pupils may sit bare-headed as they do at home. Why not allow teachers the same latitude. And during hot weather, why not permit boys and teachers alike to work with their coats off? Why go against the rules of hygiene simply for the sake of a false sense of discipline or decency? Why cover the body with two or three layers of cloth when nature especially during hot weather requires the skin to be in direct contact (so far as possible) with cool and fresh air? The European custom of sitting bareheaded has much to recommend it as it keeps the brain cool by free ventilation.

The greatest sin perpetrated against the teaching of hygiene is seen in the situation of schools in unhealthy areas and in the overcrowding of boys in a limited space. It will surprise many to learn that one school in Bombay is held on the 1st floor of a building, of which the ground floor is used as a market. It is in such surroundings that children learn by the direct method the Billingsgate of Bombay. Overcrowding too is quite common in India, excepting of course in most Government and a few private schools. The effect of seating children in small dingy rooms is to increase the proportion of carbonic acid gas in the air which thereby is vitiated. It is now conclusively proved that the vitality of man is appreciably lowered by the slightest increase of the poisonous gas in the atmosphere. If the proportion of the gas is more than four in 10,000 parts of air, as happens many times in crowded theatres, halls and ill-ventilated rooms, the air is unfit for human lungs. Every man is familiar with the peculiar smell of a room that has been just opened after a long time. The minute organisms that always float in millions in foul air are equally noxious. Science has proved beyond doubt that

a thing putrefies more quickly in a crowded room than when kept in the open; and that it can be preserved indefinitely in pure air from which these organisms are excluded by filtration.

If the school-building is not satisfactory the cheapest course open is to hold classes in the open air, as in gardens. The old custom of meeting in the open for the purpose of instruction is again revived in that progressive country, the United States of America. It is also followed in that remarkable institution of Sir Rabindranath Tagore. In the ordinary school where the practice is not followed, it is advisable in the interest of health to clear and clean all rooms periodically every day, in order that all vitiated atmosphere may be driven away by fresh pure air.

The present article is an attempt to show by a few cases how the school life still comes in conflict with the established rules of hygiene. It is for educationists to grapple with the problems still awaiting solution. All of us recognise the rapid strides made by education in modern times; all of us recognise the vast amount of work done by educationists especially in Europe; all of us recognise that the surroundings in the school and life in it have been made healthier, sweeter and brighter than in the past; all of us recognise the great improvement in the method of imparting instruction. But we cannot blind ourselves to the fact that we are still far off from our ideal. Let us not forget that man was meant by nature not to be a student pouring out his life-strength over books; but since the civilisation of a nation depends upon knowledge and since knowledge has thus become a necessary factor in national existence, let us see that it is imparted in the most rational way, under rational conditions, in obedience to the recognised laws of nature.

A TEACHER.

THE RESPONSIBILITY OF PARENTS FOR THE UPBRINGING OF CHILDREN.

IT is an old-standing and time-honoured complaint of parents against teachers that the latter do not properly do their duty by students, and all possible and even imaginable ills that the student population may be labouring under are traced to teachers' delinquencies. One is not so much given to wonder, when such accusations against teachers issue from the old, uneducated pessimist, as when they emanate from the *liberally educated modernist*. Recently the writer of this article was present at a meeting of parents, where the above subject was discussed, and he understood, from the general sense of the speeches made there, that parents impute, in vague terms, the way-wardness, vagaries and godless life of a great many youths of the present generation mainly to what, they say, is the fault of the present educational system, and secondarily to the fault of teachers, these latter being, in their opinion, but the creatures of the new system. Yet the educational system obtaining now has been pronounced by right-thinking men to be a decided improvement on the old pathasala system, both from a psychological and a hygienic point of view.

When parents take a high ground in passing criticisms on the teacher, the latter is tempted to peep into the home-life of the student, to

ascertain how far the parents carry out their part of the compact in the upbringing of the child. To his great amusement for the time being, but to his great regret at the consequences thereof, a strange sight meets his gaze. The treatment experienced by the child from the parents or guardians is generally one of two extreme types :—(1) the terrorising of the martinet, resulting in the production of a shy, timid, afraid-of-his-own-shadow kind of boy, and (2) the fond ultra-indulgence of the dotard producing a slovenly, negligent, bullying, devil-me-care sort of boy. The following instances will explain my meaning :—

(1) A boy of eight years is only too much looked after by three well-meaning elderly gentlemen. One of these, finding him playing at marbles one evening after school-hours behind the backdoor of the house, administers to the boy a severe box on the ear and literally drags him to a dimly-burning lamp. The other two custodians of the boy's welfare hurry to the spot. A slate and pencil are placed in his hands, and a sum in arithmetic is dictated to him. Over-awed as he is, he mechanically writes down the figures on the slate, and affects to work out what his mind, wrought to a high pitch of excitement, knows not, while the six eagle eyes of his stern triumvirate of guardians are concentrated on the slate with the power of search-lights. Suffice it to say, he makes a fool of himself; one of the martinets, thereupon, works the sum on the slate; the boy mechanically follows the steps and pretends to understand the working, just to humour them; a new sum is given to test him, he fails to do it, as a matter of course, and at once round go his ears in an acute twist, and down comes a thump on his back simultaneously. The result of all this *excellent* home-training is that arithmetic becomes a nightmare to the boy, and he carries into college life a rooted dislike for the subject.

(2) A youth of seventeen, attending a high school, for all his spare time out of school-hours is man of-all-work in a tea-shop kept by his guardian. He is roused from his hard-earned and hence sound sleep at 4 a.m. daily, and is made to sit at his study-desk, yawning and nodding over his half-comprehended book, under a flickering smoky light, in the foul air of the shop. The back of the guardian is turned, and the faltering voice of the dozing ward dies away: re-enter the guardian in a towering rage, and all the sleep is rudely shaken out of the ward, who is suddenly made aware of his own existence by one tremendous blow, dealt with a mighty sweep of the guardian's arm. The result is that the youth is little short of a dunce.

(3) One of the teachers of a high school has the audacity to give *one cut with a cane* to a boy of eighteen years, for gross misbehaviour in class. The boy, though he has suffered no real bodily injury, represents to his parents and relatives that he was all but killed by the master. In spite of the fact that the boy is standing hale and whole before their eyes, his doting relatives imagine him bleeding, and, after cursing the master, *in the presence of the boy*, depute one of the relatives, an officer with some power in his hands, to the master's house to do summary justice on him for his unpardonable audacity. The master's ears and his whole house, reverberate with words of vituperation, and he is told that the most merciful thing that can be done for him is a criminal prosecution before a magistrate.

(4) An inquisitive high school teacher wants to know what value the parents and guardians attach to the monthly progress-reports of boys, sent for their perusal and signature. He sends two blank books in a certain month, and lo ! the books are duly signed without any hesitation and with no remarks, as if the parents were quite satisfied with the *good progress* made by their boys during the month in question.

(5) A young child of only six years, because he shows some degree of intelligence, is considered by his parents to be a prodigy quite fit to study, within one year, all the books prescribed for the first three vernacular standards, and against all natural and psychological considerations and the protestations of the teacher is forced to '*mug up*' the books, to the detriment of his health, bodily as well as mental. The parents are, perhaps, under the impression that the boy's brain is a capacious jute-bag capable of holding any amount of material that may be stuffed into it.

The above instances are all taken from actual life, and similar examples could be greatly multiplied. They are all amusing, but there is a tragic vein running through them all, and they all point to the same thing—that children are brought up by parents and guardians without the least attention being paid to the real needs and conditions of the child-mind, and that when they grow up to be failures in life, the parents impute the blame to teachers and to the present system of education generally ; for of course, in their own view they have all along been judicious in the treatment of their children.

It is not easy to convince parents or guardian that even a share of the blame for their children's failures must fall on them. Yet I venture to offer to them few simple and practical suggestions regarding the upbringing of children which will require not more than a slight exertion on their part and, may be, a little violence to their feelings :—

(1) In the first place more can be got from a child by cajolery and kind words than by the rod. In America they have reversed the old saying "Spare the rod and spoil the child" into "spoil the rod and spare the child : " in Italy the Montessorian system, not merely does not coerce but seeks to foster the spontaneous growth of the child-mind with material suited to its stage of development ; in both countries excellent results have been attained. Parents in India also might very well try to understand the child-mind, and to this end they should intelligently spend as much time as they can with their children.

(2) A father should endeavour to spend at least an hour, daily, in the study-room of his son, to assure himself that the boy is up-to-date in his lessons, instead of either constantly boring him with dry directions "to read" or generally giving him a loose rein as long as possible, and occasionally indulging in outbursts of temper, accompanied by vociferous orders "to read."

(3) Parents should beware of bringing up their children with too much indulgence, for otherwise they will lose their hold on them, when grown up into youths. Parents should also refrain from praising their children in their presence, as otherwise the minds of the latter will be filled with self-importance and they may disregard parental authority. In short, parents should behave in such a way that they are respected and revered by their children. Further, as a matter of policy, parents

should present a united front to the child in the matter of discipline, as otherwise the child may play the father off against the mother and grow to be an autocrat in the house. It is common knowledge that when a father takes his son to task for misbehaviour, the mother will often authoritatively intervene and carry the son off under the wing of her protection, as if she had all the affection for him and her husband had none.

(4) Parents would do well to give their children, from a very early age, a clear idea of right and wrong and to teach them, by example as well as precept, how to behave properly towards strangers and superiors. When quarrels arise among children of neighbours, it frequently happens that parents never stop to consider the merits of the case, but blindly and vehemently uphold their own children. Such behaviour on the part of parents makes children arrogant and overbearing.

(5) Parents would do their children much good, if they refrained from criticising teachers in their presence. Students have a high regard for their teacher to whom most of them look up even as their ideal in life. Such being the case, for a parent to hold the teacher up to ridicule will undermine the pupils' faith not only in the superiority of the teacher, —and faithless study soon comes to be half-hearted and soul-less—but in the superiority of any kind of elder.

(6) Parents generally complain that their boys under the present system receive a godless education at school. Here again the teacher comes in for a large share of the blame. The fact is that under a system of liberal education, the tutored mind of a boy hankers after the rationale of everything around him. Naturally he falls to questioning his parents regarding the meaning of certain rites and practices in religion. Now, if parents take some pains, all these rites and practices can be reasonably explained. In this connection the "Sanatana Dharma Series" of the Central Hindu College, Benares, will be of great help to parents. But, as it is, the orthodox section of parents intimidates and browbeats the inquiring boy and demands from him blind obedience to the time-immemorial customs, while the light-hearted, free-thinking section tells the boy that all the traditional rites are "bosh". The result is that the boy finds himself distracted by the rival claims of reason, custom and authority and is apt to take refuge in indifference, becoming in the words of the parents themselves, a godless youth.

In conclusion, parents might, if they chose, take a greater, more active and more reasonable interest in the studies, manners and religion of their children, by being with them as much as possible in their home-life, instead of considering their duty done, as most parents do, when they have got their children's names registered in the school. This will heighten the love and respect of children for their parents and will strengthen the bond between the two. Teachers must take and do take pains for the improvement of the child, but what they can do must necessarily be little compared with what parents ought to be able to do, seeing that, in India, we have practically no boarding schools, as in England, and for the major part of the day the child is in the midst of the family circle—which, perhaps, is after all the best thing for him, considering his tender age. Parents should, if they seriously take thought, be able to create a healthy mental and moral atmosphere for their children, in their home-life.

EDUCATION IN CEYLON.*

PUPILS, under instruction 395,809, an increase of 5,375 on 1916. The proportion is one child under instruction for every eleven person. The increase in the number of pupils attending is due to increased efficiency in securing school attendance; defaulters are promptly reported and deterrent fines imposed. Compulsory vernacular attendance has still to be enforced in the town of Colombo. Stricter control over the numerous private schools where English is taught has been sought by an Ordinance providing that anyone desiring to give instruction in English or other language, in a building not previously used by him for the purpose, to children of school-going age must report to the nearest Inspector or Sub-Inspector at least one month before and thereafter supply such information as the Director may require with regard to his class and courses of instruction.

Higher Education.

"To Sir Robert Chalmers the Colony is indebted for securing sanction for a University College to be affiliated to the University of Oxford, with a diploma which will entitle the holder, when the University College is converted into a University, to the corresponding degree without passing any further examination, and which will be accepted by the affiliating University as the equivalent to a degree in the case of all students proceeding to England with a view to further study and to taking a higher degree. The details of the curriculum of the University College have been worked out." It is proposed to hand over the buildings of the Royal College with the addition of new science laboratories to the University College and to build a new Royal College. A start has been made with the laboratories; the new building for the Royal College awaits funds.

196 aided and 62 unaided schools attended by 31,907 and 2,683 pupils. There is "an ever increasing demand for English in this country, 'English more English, better English' While English is, perhaps better expressed and pronounced by those in Ceylon who have received their education in the best English boys' and girls' schools in the Island than in most Eastern countries, on the other hand the number of boys applying for posts in Government and mercantile offices, etc., who have a *working* knowledge of English—who can express themselves simply and intelligibly in English—forms a very small proportion amongst a very large class. It is unfortunately the case that a pass in English in the Senior Cambridge examination in the past does not necessarily mean that the student can write a simple letter applying for an appointment without committing several errors in grammar and composition." "The remedies suggested include, slower and more careful instruction at every stage, insistence that the student can think and express himself clearly in English before he take up any other language (especially Latin) or even learns his other subjects through the medium of English, more attention to English conversation, diplomas in spoken English in the preparatory classes and to teachers who can teach English conversation without recourse to metaphor and idiom and an improvement of examination methods.

*Report of the Director of Education for 1917.

Vernacular Schools.

2,652 schools attended by 216,444 boys and 106,978 girls, an increase of 7,667 pupils; the average attendance is 66.7 per cent., a slight decrease perhaps accounted for by greater accuracy in the preparation of returns by attendance officers.

In Government schools the pay of teachers was raised. A first class certificated teacher now rises to a maximum of Rs. 900 per annum in a big school and Rs. 660 in a small school, a second class certificated teacher rises to Rs. 600 or Rs. 480, a third class to Rs. 270 after 26 years satisfactory service. A new scheme of results pay to teachers was introduced, devised also to secure that for every 50 children there is one certificated teacher. The age of compulsory attendance was raised from 12 to 14 in village schools.

Training Schools.

In 1903 there were 22 students in the Training College, in 1917 there were 166 students.

Female Education.

124,378 girls under instruction, about 41 per cent. of the girls of school-going age. Of these 7,213 attend registered English schools. Of 13 candidates for the Senior Cambridge examination 7 passed: 14 out of 61 passed the Junior. Nine girls schools have their own science laboratories and equipment, two have equipment but no special science laboratory. Comparison is made with conditions in the Madras Presidency to show the progress in Ceylon of women's education and the high standard of literacy among women and the generally good English spoken in the homes.

Estate Schools.

9,811 children attend schools on tea and coffee plantations, (an increase of 3,040) of whom 8,794 are boys and 1,017 girls. Compulsory attendance has never been enforced with regard to girls on estates and only about one-eighth attend school. "Until it is considered necessary and advisable to enforce some measure of compulsion, the progress of estate schools must depend almost entirely on the interest shown in them by the estate superintendents." Several planting associations expressed willingness to co-operate in carrying out a suggestion of the Director that no child between the ages of 5 and 8 should be paid for any day on which the child had not attended school for two hours.

Physical Education.

Part of the time of the Physical Director of the Young Men's Christian Association was secured for the Department. Classes of physical training for teachers were held, consisting of a lesson once a week of one to two hours, half the lesson being occupied with a lecture, and half with practical work, the course being prolonged at the Government Training College through one or two years. Successful teachers were granted a certificate.

THE NEWS OF THE MONTH.

BENGAL.

THE Annual Convocation was this year extended over two days owing to the number of candidates for degrees and the limited

accommodation. On the first day the Rector, Lord Ronaldshay, presided and 619 were admitted to degrees including 12 girls. On the second day His Excellency, the Viceroy, presided as Chancellor and in the course of his address said that they were all looking forward with interest to the forthcoming report of the Calcutta University Commission and that, for himself, if the commission was unanimous in its recommendations, he should lose no time in giving effect to them. He asked critics of its recommendations to weigh carefully the question at issue before making up their minds. The problem was to re-shape university education, reform university machinery, and provide openings for the largest student population of any university in the world : to remedy the congestion in the professions and in the colleges : to consider whether the congestion was not due to the large number of students who were doing in a college what should be done at school : to effect the transformation of the university from an affiliating and examining institution into a university which was also a teaching institution. He dwelt on the importance of the coincidence of this commission with the Industrial Commission which would help to divert the stream of student from the clerical and legal professions to industrial and commercial enterprises. Action had already been taken on the report of the Industrial Commission and before a year elapsed he hoped to see the foundations laid of a scheme for progressive industrial development in India. After a tribute to Sir Devaprasad Sarbadhikari and Sir Gurudas Bannerjee he proceeded to emphasise for the benefit of the students two lessons of the war, the defeat of the German theory of kultur—the subordination of all knowledge to the service of lawless force with a view to the enslavement of the world—by the honest and hearty co-operation of all classes and creeds among peoples who deprecate such false ideals, above all among those of the British Empire whose motto was to live and let live, maintain the peace but maintain also the common rights of man. Secondly the lesson of discipline. Unity, discipline and loyalty were the instruments through which the good cause had triumphed. The task of reconstruction demanded the same qualities as had won the war and they involved self-denial, reasonableness and enthusiasm. The foundations of these were to be laid not in a day or without endeavour but in the home, school and college, by obedience to parents, and to teachers, assiduity in study, punctuality in habits, sportsmanship in the playing field, hearty co-operation between students and instructors.

BIHAR.

At the convocation of the Patna University an endowment was announced from the Chancellor of Rs. 1,500 for the award of a gold medal annually to the student who obtains the highest marks in English among successful candidates in the B. A. Examination.

BOMBAY.

The Legislative Council paid a well deserved tribute to the work of Lord Willingdon during his period of officer. Referring to educational progress, the Hon. Mr. Paranjpye said that the credit for Mr. Patel's education bill was in no small measure borne by His Excellency, as also the undertaking of Government to contribute half the cost of compulsory education where municipalities would bear the other

half, and the generous contribution to the Bombay Municipality's programme; he added that Lord Willingdon's Government had always been sympathetic towards any resolution that had for its object educational progress. He spoke emphatically of the harmonious relations which Lord Willingdon had established between Government and the University and the success which had resulted from his policy of appointing experts on the Senate and trusting them as far as possible. Evidence to the same effect was supplied by the Hon. Mr. Lalubhoy Samaldas. His Excellency in his reply thus summarized the educational work which had been accomplished by his Government.

"One of objects of my work was to secure co-operation between various organizations. The great and main policy was to secure cordial relations and co-operation between various bodies. As a result of this co-operation they had secured the desired reform in regard to the school final and matriculation examinations and to which Mr. Paranjpye had referred. Taking first the University, I should like to express my keen satisfaction as the cordial relations which have always existed between my Government and the University, which have resulted in our co-operation towards many useful reforms, notably the formation of the Joint School Leaving Examination in place of the Matriculation and the School Final Examination. Another matter to be noticed is the decision to establish a School of Economics and Sociology and also the commencement of the building in the University Gardens for extended University teaching. With regard to Arts Colleges, we have established a second grade Government Arts College at Dharwar, and another point of interest has been the affiliation to the University of the Surat College and the New College, Poona. We have further decided to increase the maximum limit of Government grant to aided colleges to one-fourth of their total expenditure of previous years. With regard to secondary education, the following points deserve attention;—(1) The improvement in the pay of assistant masters. (2) The introduction of practical Science teaching and the Sloyd system. (3) The increase of 3 lakhs for grant-in-aid to secondary schools. I would further add that there are proposals under consideration to further improve the pay of assistant masters and to open more Government high schools for boys, making special provision also for girls.

I now come to primary education, and here our chief activities have been: (1) The opening of nearly a thousand new primary schools, (2) the increase of pay to untrained teachers and the payment of the face value of certificates to all trained teachers, (3) the abolition of "rural" standards, (4) the passing by this Council of Mr. Patel's Bill for the introduction of free and compulsory primary education in municipal areas, (5) we have decided to provide schools for every village of a thousand inhabitants and subsequently for every village of 500 inhabitants, (6) we have determined to try the experiment of teaching English in the highest classes of selected vernacular primary schools, (7) we have decided to improve further the pay of untrained teachers at a cost of over 4½ lakhs.

With reference to the training of teachers, we have sanctioned a comprehensive scheme involving an annual expenditure of over 10 lakhs for the training of all primary school teachers and for the opening in every district of a training school and have further sanctioned a scheme to

enlarge the output of trained secondary teachers to 200 a year. With regard to Mahomedan education, it will be within the recollection of honourable members that two committees were formed some time ago to review the whole field of their education. These committees made many recommendations, of which some have been given effect to and others will be as soon as finances permit."

The All-India Educational Conference, at Surat, was presided over by the Hon. Sir Ibrahim Rahimtulla, whose presence excited great enthusiasm. The President began his opening address by referring to the causes which have contributed to the educational backwardness of the Muslim community. Rejecting any suggestion that the community was intellectually inferior to any other, he set himself to combat the belief, still firm in many quarters, that education in foreign languages results in a Mussalman losing his faith in his religion. He asserted that, so far from discouraging the study of foreign languages, Islam lays down most emphatically the obligation to acquire knowledge where ever it can be found and quoted the saying of the Prophet that Mussalmans should acquire knowledge even if they have to go to China for doing so. This could not refer to religious education only for that could be obtained without going so far. He quoted authorities to show the past glories of Islam in philosophy, arts, science and literature and the words of the Prophet, "Everyone who seeks knowledge, adores God, who dispenses instruction in it bestows alms, and who imparts it to its fitting objects, performs an act of devotion to God." There were thousands of English educated Mussalmans who were as staunch in the faith of Islam as the most orthodox. He then illustrated the educational awakening by the Muslem University of Aligarh, the University of Hyderabad and the Sultana College of the Begum of Bhopal. The promotion of religious education, he said, must be carried on mainly by the different communities. Government could not be expected to provide such facilities. A large number of Moslem High Schools and Colleges must be established throughout India and funds must be raised by stimulating charitable endowments. Already something had been done. It was said that among the Mussalmans of Bombay alone there were charitable bequests amounting to over two crores of rupees, but a large part of this remained fallow and unutilised. What was wanted was a *scheme* for financial help for the many deserving and eager but poor young men, to take the form of scholarships awarded and utilised on the lines of the Tata scholarships but with modifications required by the circumstances of the Mussalman community. The scholarships should take the form of loans at interest which on repayment would in combination with interest on the principal sum steadily increase the Fund. But they would have to be awarded not to graduates but to students at the time of passing matriculation or the high school leaving examination. This would enable the trustees to watch the careers of scholars and send them to Europe later if they proved worthy. Another modification would be in regard to the investment of the fund: a third might be that the payment of interest on the loan should be left to the discretion of the scholar: the scholarships should be available for technical and industrial education also. Each province would adapt the rules to local conditions. Sir Rahimtulla further suggested as a second means to supply the want of funds the reduction of the cost of higher education. The Hindus had

effected this by stimulating a spirit of sacrifice and self-devotion among their scholars so that at the Fergusson College brilliant graduates served at bare maintenance wages. He urged Mussalmans to follow the example of the Deccan Education Society.

A number of resolutions were passed which included one stating that the problem of finding one medium of instruction is difficult and that no satisfactory solution to it has been found ; demands for a special Mahomedan Inspector of Mahomedan schools, and for the increase of Mahomedan teachers in Sind in proportion to the population ; for early legislation to secure the establishment of the Moslem university, and the use of Sir Mahomed Yusuf's donation to it ; for compartmental six monthly university examinations and the teaching of Arabic in one Government college. A sum of Rs. 40,000 was collected for hostels for Mahomedan students. A donation of Rs. 10,000 was made by Mr. Ismail Haji Musa to Aligarh College, for the founding of ten monthly Rs. 40 scholarships for Guzerathi students.

MADRAS.

An important Government Order on the Medical inspection of schools declares Government's recognition of the need of action and invites the special attention of managers of schools to the matter. Government suggests, "that it would generally be a useful procedure if, for each large school, a suitable registered medical practitioner should be engaged as the medical officer of the school. The medical officer thus employed would then arrange, in communication with the headmaster or other controlling authority, each term to examine all newly-joined pupils. If any pupil is found to be suffering from removable and non-communicable causes, such as short-sight, caries of the teeth, adenoids, hernia, etc., intimation should be sent to the parent or guardian so that he may take action if he sees fit. When a pupil is found to be suffering from minor communicable disease, such as itch or ringworm, which would justify the enforcement of temporary absence until a cure is effected, steps to that effect should be taken by the headmaster in the interests of the other pupils in the school. In cases in which more serious infectious disease such as leprosy or active forms of pulmonary phthisis is discovered, it would certainly be the duty of the manager to request the parent or guardian to remove the infected child from the school, in order that other pupils may be saved from the risks which would be caused by his presence. In every case, it should be left to the parent or guardian, if he elects to procure medical treatment for the boy, to secure a medical attendant at his discretion.

The medical officer should also make periodical examination of the school buildings and premises and should advise the school authorities regarding any sanitary defect which he may discover. It will then be for the headmaster or manager to work out, in consultation with the medical officer and subject to the general advice of the Surgeon-General and the Director of Public Instruction, detailed proposals to remedy such defects so far as funds available will permit.

The above suggestions are intended to relate primarily to schools. The pupils in colleges are older and in many cases it is too late, by the time collegiate life is reached, to treat successfully defects in health. But in colleges in which the tutorial system has been introduced the

assistance of tutors might be utilised as far as possible in connection with this scheme of medical examination as they may have facilities for noticing whether the health or general condition of any student is such as to render medical advice necessary.

In the case of Government institutions and institutions under local bodies, the question as to what officer should be appointed medical officer of the institution will be considered by the Inspector of schools, who will ascertain what medical practitioner can most conveniently be appointed and will make a report to the Director of Public Instruction with proposals relating to remuneration and other details. The Director of Public Instruction will take the orders of the Government on the subject until a regular scale has been arrived at. In the case of aided institutions, it will be left entirely to the manager to select a medical officer and to arrange for his remuneration, but the Government will be prepared, so far as funds permit, to make a small grant-in-aid towards the expense which such medical inspection may involve, the payment of the grant being conditional on the appointment of the medical officer being approved by the Director of Public Instruction in consultation with the Surgeon-General and on the submission to the Director of Public Instruction of yearly reports on the medical officer's work. The Director of Public Instruction will, in due course, submit proposals regarding the scale on which such grants-in-aid may be given. It will be left for the consideration of the managers of aided schools and colleges whether a small fee might not be levied from each pupil towards the expense of medical examination."

UNITED PROVINCES.

In a speech at the annual prize-giving of the Muir Central College, Sir Harcourt Butler appealed for greater attention to the amusement of the people, the brightening of their lives. The belief in a mythical economic man, who was always out for gain, devoid of natural emotions, the figment of a philosopher's brain, had been the curse which had rested on the political and social and economic theories of the Victorian era. The revolt of the modern man was largely a revolt against the dullness of his life and the dullness of his surroundings. In Native States they had processions, wrestling matches, meetings and similar amusements which interest the people and give them topics of conversation outside their hard and humdrum lives. This might appear a small thing but if they could believe him very large issues in the future depended on whether they could brighten the lives of the peoples the present.

BURMAH.

The Committee of the Burmah Educational Syndicate in September resolved that a scheme for establishing an employment bureau was quite feasible. Contact between employers of labour and candidates for employment would best be effected by the proposed initial registration of requirements from each side supplemented by a careful distribution of printed lists of vacancies and applicants according to well defined groups of occupation (commercial, industrial, etc.,) with subdivisions where necessary, such lists being augmented monthly and revised yearly. So far as seekers of employment are concerned, the bureau of employment should be for juveniles only *i.e.* for students who have left school or college within a period of not more than three years previous to the date

of their application for registration. A candidate for employment should be allowed to register both at the head centre (Rangoon) and at one of four approved district centres. A nominal registration fee of Re. 1 should be charged.

REVIEWS OF BOOKS.

A SOCIAL HISTORY OF ENGLAND

By F. Bradshaw.

UNIVERSITY TUTORIAL PRESS. 4s. 6d.

THE majority of history text-books are compelled, through limitations of space, to concentrate upon political and constitutional issues, whilst social and economic development is relegated to the background. This is particularly unfortunate as economic history now plays an important part in the history curriculum of all Universities and students generally come to college absolutely unequipped in this department, and there are few text-books on economic history suitable for school use. Mr. Bradshaw has endeavoured to supply one; primarily intended for the use of upper classes in schools, his little "Social history of England" would also be well adapted for pass students in colleges, for it is admirably conceived and executed. In a small space he has described the evolution of the English social and economic system, and the book is both reliable and interesting. Unlike many compilers of text-books, Mr. Bradshaw has made full use of recent research work and does not repeat ancient shibboleths; his treatment of the later Middle Ages and the effects of the Black Death is particularly good in this respect.

THE JOURNAL OF THE UNITED PROVINCES HISTORICAL SOCIETY.

VOL. I, PART 2, JUNE 1918. PRICE, RS. 6. LONGMANS, GREEN & CO.

The appearance in India of true historical reviews is a welcome indication of the increased interest which is being taken in the serious study of Indian history. The United Provinces Historical Society now issues its first journal and if it maintains the high standard set in this number it will do very well indeed. It contains seven articles of which the most interesting to the general reader will undoubtedly, be Mr. Gardner Brown's valuable study of Mohammed bin Tughlaq, and a study of Henry Wellesley's administration by Mr. Dewar. The illustrations are admirably produced.

ANTHOLOGY OF INDIAN HISTORICAL VERSE.

By P. Seshadri.

MACMILLAN & Co., Pp. 119.

THIS anthology seems to us admirable, both in idea and execution; The thirty-eight poems are varied in theme though all drawn from Indian history and for the most part are of good quality. The authors represented are, Tennyson, Moore, Leigh Hunt, Lowell, Kipling, Leydon, Newbolt, and Lyall. The only Indians are, Mrs. Sarojini Naidu and R. C. Dutt. Perhaps more space might have been found for the Dutt. To an Anglo Indian boy this will be a reader of absorbing interest. The Hindu or Mussalman boy will find plenty to appeal to his love of a daring deeds and to his patriotism.

INDIA IN SONG.

Selected and arranged by T. D. Dunn.

OXFORD UNIVERSITY PRESS, BOMBAY. Pp. 96. Re. 1-4.

THIS is a collection of forty-five English poems by British and Indian poets treating of Indian themes only, the history, religion, legend, scenery of India. In subject it has a wider range than the anthology reviewed above, it does not draw on a greater number of authors but it includes a greater number of poems by Indians. These include H. C. and S. C. and O. C. Dutt, Toru Dutt, Kasiprasad Ghosh, Sarojini Naidu and Nawab Nizamat Jung Bahadur. On the whole the quality of the poetry seems inferior to that of Mr. Seshadri's selection, few of the poems striking us as the product of real inspiration and some, *e.g.* Dunbar's *The Adjutant and The Crow*, as poor. If poems by poets who had no personal knowledge of India were admitted, could not something more original or more representative of the author's genius have been found than that on Nadir Shah doubtfully attributed to Tennyson. However, the best poetry does not always make the most appeal to children and the greater familiarity of the subject matter of these poems will probably make the collection popular. A few suggestions for study and notes are appended. In a second edition the statement in the introduction that Sir Edwin Arnold, "in his brief period of service in the Elphinstone College, drew sufficient inspiration from India," etc., should be corrected. Arnold was from December, 1857 to 1860, Principal of the Poona College, from which grew the Deccan College.

EXERCISES FOR PARAPHRASE AND COMPOSITION.

By P. Seshadri.

MACMILLAN & Co. Pp. 167.

A USEFUL collection of exercises in paraphrasing, story telling summarising, expansion, also serving as a poetry reader. With the exception of one or two songs which seem to us beyond paraphrase the poems appear very suitable; the narrative poems will be useful for reading or composition.

THE KING AND THE FOUR DERWESHES.

By J. C. Nesfield.

MACMILLAN & Co. Pp. 153., Illustrated.

SIX tales freely rendered and adapted from Bagh-o-Bahar: presumably intended as a reader for Mussalman children. The stories are interesting and told in straightforward, elegant English, suitable for higher standards. Would also be suitable for school libraries.

MURBY'S SMALLER SCRIPTURE MANUALS. II SAMUEL.

By G. W. and J. H. Wade.

THOMAS MURBY & Co., LONDON. Pp. 93. 1s. 6d.

CONTAINS the text (in the Revised Version) with footnotes, two maps and an introduction of 54 pages dealing with modern, criticism, date, historical and moral value, literary characteristics

Jewish history, customs and poetry and many other matters on which candidates for Junior Local examinations might be questioned. The notes are mainly explanatory of the narrative. A very complete edition which, however, imposes a considerable burden of study on a junior student. We do not see any advantage in the unusual shape of the book, 8 $\frac{1}{4}$ " by 4 $\frac{1}{2}$ ".

GEOGRAPHICAL EXERCISE BOOKS. VII. PHYSICAL GEOGRAPHY.

With questions by B. C. Wallis.

MACMILLAN & Co. Pp. 48 QUARTO. 1s. 6d.

ANOTHER of the series reviewed in our October number. The method is admirable: diagrams on the left to be studied and used in accordance with explanations, questions on the right: the exercises are very practical and the correct execution of them would imply a very thorough knowledge of climatic and physiographical conditions. But (1) the exercises imply a much more thorough grounding than either teachers or pupils possess in this country. (2) The diagrams and particularly the numbers on them are too small and try the eyes.

PRACTICAL GEOGRAPHY NOTEBOOKS. THE BRITISH EMPIRE;

By T. Franklin and E. R. Shearmur.

W. & A. K. JOHNSTON. Pp. 40 QUARTO. 6d. net.

SIMILAR to the last: based on the publishers' 'Atlas' geographies. On the left page exercises on surface and routes, climate and vegetation, minerals and manufactures, commerce and population followed by maps, diagrams, and blank squared or ruled pages. The exercises are not beyond well-taught boys in this country and the low price of the book will suit Indian purses.

FIFTY YEARS OF AMERICAN EDUCATION

By E. C. Moore.

GINN & Co., BOSTON. Pp. 96.

THIS is issued to commemorate the jubilee of the publishers' business. It is a sketch of the progress of education in the United States from 1867 to 1917, and provides a most useful and interesting introduction to the study of the history of education in the States. One most striking feature is the extent to which 'Missionary' Societies and private benefactions have contributed to progress. Another is the readiness with which experimental schemes are evolved and the success which American thoroughness and practicality has secured to them.

THE DOCTRINES OF THE GREAT EDUCATORS

By Robert E. Rusk.

MACMILLAN & Co., LONDON. Pp. 288. 5s. net.

ASERIES of essays or lectures briefly expounding the doctrines of twelve representative educators, Plato, Quintilian, Elyot, Loyola, Commenus, Milton, Locke, Rousseau, Pestalozzi, Herbart Froebel,

Montessori. The treatment excludes biographical detail and is expository rather than critical though care is taken to relate the doctrine to the prevailing conditions of life and to indicate the historical connection between successive doctrines. As a result a large portion of each essay is summarisation and a little dry to any but the keen student of educational theory. But the book should prove an exceedingly useful introduction to the study of education for teachers under training and for their instructors, especially if, as advised, they will read the original documents along with the essays. The summary of the Montessori method, though written before the extension of the method was published, will be found to give a useful view of the principles and method.

OUR CONTEMPORARIES.

THE following extracts from an article in *The Hindustan Review* on "Some Aspects of Female Education in India" by Mr. A. S. Bhandarkar, convey his definite suggestions for what he conceives to be the best course of instruction for Indian girls.

"I hope we can now clearly see the necessity of instructing our girls efficiently to fit them for the duties of a married life even if it be at the cost of general culture. Their special High-school curriculum should consist of principles of domestic science and economy and of hygiene all with demonstrations, practical lessons in first-aid, care of children and cooking besides the usual instruction in sewing, knitting and elements of drawing, painting and music. Their general culture course should, I think, include (1) English conversation, and composition, (2) some acquaintance with their Vernacular and English literatures, (3) a speaking and reading knowledge of one more Indian Vernacular besides their own, (4) a good knowledge of Indian history and geography taught in the latest manner and lastly (5) the usual mathematics given to High-school boys.

A writing and speaking knowledge of English is necessary for every one now-a-days as English is not only already the common tongue and serves as a common bond of unity between educated members of different races in India but it bids fair to be our country's universal dialect. An acquaintance with English and Vernacular literatures, which our girls can improve later on at leisure, would create in them a taste for reading and provide them with a liberal source of innocent amusement and enlightenment. . . . A certain amount of mathematical training would, I think, develop the faculty of deductive reasoning in our girls though, I know, algebra and geometry will not be of much practical use to them in their life.

I have been told that it is not necessary to have sewing, knitting and cooking in our girls' curriculum for they usually learn these things at home. But as one occasionally comes across girls over-fondled or born in rich families who do not know these things, especially cooking, there is no harm whatsoever in providing for such exceptions by making the above subjects compulsory in their High-school course. Now-a-days almost every middle class family keeps a paid cook but it is desirable that our women should know cooking against any case of emergency.

OUR CONTEMPORARIES.

One should not underrate the practical difficulties in the way of teaching cooking in India where the manner of preparing dishes varies from caste to caste and place to place. But, I think, it is not altogether impossible to overcome them if one builds and finances institutions on a large scale—as they do in Europe and America—with residencies and students attached to them where the girls can form themselves into clubs for boarding purposes and where scientific and practical training in different types of cooking could be given by cooks proficient in the same as well as practice. There should be at least one such institution in every big city to start with.

As no sufficient demand for separate women's universities will arise in India, at least for a long time, I think, the system of co-education will have to remain with us till then,..... Granting a four years' university course and reserving the last two years for specialisation, the first two years study should include (1) main principles of natural science, *e.g.*, physics, chemistry, botany, zoology and geology, all with laboratory work; (2) principles of economics, (3) outlines of European history, and (4) papers in composition and translation in the two vernaculars taken up in High-schools. The girls should be obliged to take up psychology, chiefly child-psychology, and a course in child training instead of any two subjects coming under (1).

It might be asked, whence are our girls going in for university education and marrying after their graduation to get the instruction in domestic arts and sciences provided in our special institutions mentioned above? Will they not have to pass through a High-school course stipulated by our conservative universities? My answer is that our whole system of education in India must be overhauled and reconstructed. The important problem before our Indian educationalists to-day is, to my mind, not so much that of the medium of instruction or boycotting of English culture and language but that of a proper and useful curriculum. I think our Indian girls must be made to give a good account of themselves in the subjects indispensable for the duties of a house-wife at their matriculation examination. The boys on the other hand should be required to pass in, say, (1) outlines of English history, (2) principles of general science as encountered in Nature-study, with experiments and (3) a second language such as Sanskrit, French, etc., as substitutes for the subjects reserved for girls in High-schools. A practical knowledge of gardening may also be usefully added to the boy's curriculum. One fails to understand why music is so seldom taught in boy's secondary schools unless it be due to the general neglect of the soul which is a characteristic feature of modern education."

From the *Madras Educational Review*, an address by Mr. R. S. Satham, on "The Duties and Responsibilities of Teachers."

I would like to suggest to the members of your Guild a few ways in which this social question [the low social status of Teachers] can be partially overcome. I have already admitted that first a large rise in salaries must occur, but apart from that I think it is possible for teachers, particularly if College teachers will work hand in hand with school-teachers, to educate the public into a right way of thinking in the matter of the importance to society of educationalists. Reverence for the Guru has always been a feature of this country, and I think that students who are going to become prominent citizens by virtue of the benefits they have

received from their teachers should be taught more than they are to uphold the social position of their masters. I know that theoretically every Indian holds his teacher in veneration but in practice if it became question of seating accommodation, we will say at a public meeting, his teacher would have to take a back seat while a prominent though uneducated merchant would sit in front. In England the pay and position of junior masters were not good but by co-operation they have done a great deal to better their position. One great drawback of the teaching profession is that there are no pensions and you must fall in harness or else retire to extreme poverty, particularly if besides being unfortunate enough to be a teacher you are unfortunate enough to be a father of several daughters. The laws of nature in this matter are inscrutable, for just like the poor clergyman in England the poor teacher in India seems to be a prolific father. But these difficulties can to some extent be ameliorated by insurance and co-operation. Insurance if begun young enough will both secure a dowry for a daughter and an annuity for old age.

It needs no logic of mine to prove to you that the first step towards the formation of a healthy brain and a useful citizen is a healthy body, and yet if you are to be honest with each other, you must admit that you are daily permitting boys to read long hours in the class-rooms which are not always models of sanitation and airiness, to return to small houses which, in spite of the cleanliness of the owners, are often from the condition of sanitation in the town pregnant with disease, to continue day after day without acquiring even the elementary school-boy necessities of good air in their lungs and healthy bodily exercise. Some of you will say I am exaggerating. I deny it. I am well aware that in both our schools and colleges games are played, but if you will take statistics whenever possible, as I have done, you will find that the number of school and college boys, particularly school boys, who take regular healthy physical exercise is very small indeed.

In the matter of the ill-health of our students I am not speaking of the book. There have been unfortunately too many public opportunities lately to judge of the truth of my picture. With stronger and better developed bodies our boys would have been more fortified against this influenza scourge which has robbed us of some of our best. The medical examination for the I. D. F. came as a shock to many of us, and the medical examinations in schools which are now being introduced tell the same tale even in Trichinopoly. I understand that in one institution here, though few boys were found actually unfit to sit in the class-room, more than 50 per cent. were below what an average boy of a given age should be. In my own college the physique of the student is not only declining year by year at present, but is by actual statistics much inferior, to the physique of the student of the last generation.

From a letter to the *Times Literary Supplement*, headed 'Shakespeare in Konkani' :—

A few years ago I picked up in Bombay, Part I, of a series entitled "Shakespearachea Khellanchi Mall," dealing with the story of "Razput Hamlet ani Bapaichem Bhut." It is not a translation of Shakespeare's tragedy, but merely the story of the Prince of Denmark in Konkani. The little book, extending to 32 pages, was evidently meant for Portuguese readers, as the meanings of the more uncommon Konkani words are

rendered in Portuguese in footnotes. There is a primitive woodcut on the paper cover representing Razput Hamlet (wearing gum boots) and Ranni Gertrud sitting on regulation drawing-room chairs opposite each other, the Razput lecturing his mother. I have presented a copy of the booklet to the Shakespeare Library in Birmingham.

GOVERNMENT NOTIFICATIONS.

PERMANENT NOTIFICATION.

No. 3197 OF 1902-03.

POONA : OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
6th March, 1903.

INDIAN EDUCATION.

THE Educational Department is not responsible for anything which may appear in this publication, unless over official signature.

F. G. SELBY,
Director of Public Instruction.

NOTIFICATION.

No. 11569.

It is hereby notified that the following book has been sanctioned for use as a text book in standards IV and V of Anglo-Vernacular Schools. Copies of the book can be obtained from Messrs. Macmillan and Company, Hornby Road, Bombay :—

“Geography for Junior Classes” by E. Marsden, B.A., translated into Marathi by Mr. Narayan Vithal Apte, price, Rs. 1-8.

OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION, K. S. DIKSHIT,
POONA, 19th December, 1918. for *Director of Public Instruction.*

NOTIFICATION.

No. 12555.

SEVENTH LIST—(continued.)

List of English Books recommended for boys libraries and extra reading.

Oxford University Press, Bombay.

The School Boy League of Honour, by Chapman, Dix and Katarni,
price, Re. 1.

OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION, K. S. DIKSHIT,
POONA, 13th January, 1919. for *Director of Public Instruction.*

APPOINTMENTS, ETC., MADE BY GOVERNMENT.

28th November, 1918.—The privilege leave for one month and fifteen days on half pay granted to Mr. Fardunji Dorabji Mehta, Head Master, Sorabji J. J. High School, Surat, by Government Notification No. 2496, dated the 24th September, 1918, is hereby converted into leave on medical certificate.

Mr. Mehta is granted further leave on medical certificate for three months from 16th November, 1918, or the subsequent date on which he may avail himself of it.

His Excellency the Governor in Council is pleased to appoint Mr. Chandravadanram Ramnikram Munshi, Assistant Master, Sorabji J. J. High School, Surat, to act as Head Master of the School on Rs. 200 per mensem, during the absence on leave on medical certificate of Mr. Fardunji Dorabji Mehta; or pending further orders.

2nd December, 1918.—His Excellency the Governor in Council is pleased to appoint Mr. H. G. Rawlinson, on return from Military duty, to act as Principal, Karnatak College, Dharwar, *vice* Mr. C. J. Sisson, reverting.

Mr. Hormasji Sorabji Captain, Barrister-at-Law, Professor of Law, Government Law School, Bombay, is granted leave without allowances from 20th November, 1918, to the 2nd January, 1919, both days inclusive.

3rd December, 1918.—His Excellency the Governor in Council is pleased to appoint Mr. Ramkrishna Govind Bhadkamkar, to act as Professor of Sanskrit, Elphinstone College, Bombay, during the absence on leave of Dr. Vinayak Sakharan Ghatge, D. Litt., or pending further orders.

12th November, 1918.—Mr. Vasudeo Ramchandra Joshi, L.C.E., Master, College of Engineering, Poona, is appointed as a temporary measure, to act as Lecturer in Engineering at the College, *vice* Mr. Shankar Ramchandra Bhagwat, L.C.E., resigned.

APPOINTMENTS MADE BY THE DIRECTOR OF PUBLIC INSTRUCTION.

12th November, 1918.—Mr. Ganesh Govind Padhye, B.A., Deputy Educational Inspector, Satara, on Rs. 300 per mensem, is granted privilege leave on full pay for six weeks, with effect from 11th November, 1918.

Mr. Narayan Ganesh Gadgil, M.A., Assistant Deputy Educational Inspector, East Khandesh, but doing duty at Satara, is appointed Acting Deputy Educational Inspector, Satara, on Rs. 200 per mensem, during Mr. Padhye's absence on leave, or pending further orders.

13th November, 1918.—Mr. D. D. Marathe, B.A., Acting Assistant on Rs. 50 in the Belgaum High School, is made* Probationary Assistant on Rs. 50, in the Dharwar High School, with effect from 1st December, 1918.

* In the vacant grade of Rs. 50.

18th November, 1918.—The following appointments, etc., are made, with effect from 1st December, 1918:—

The transfer of R. A. Khan, Persian Teacher, on Rs. 40—5/2—100 in the Training College for Men, Poona, to the Sholapur High School, *vice* Mr. G. D. Kazi deceased, made in paragraph (2) of this office Memorandum No. 8910 of 25th October, 1918, is cancelled, and he is retained in the Training College as *sub-protem* Urdu Teacher on the same pay, *vice* Mr. Shaikh Fatru appointed *sub-protem* Assistant Deputy Educational Inspector, Thana, on Rs. 75.

Mr. Y. D. Joshi, M.A., Assistant on Rs. 60, in the Sholapur High School, but doing duty in the High School for Indian Girls, Poona, *vice* Mr. J. Hyams, is confirmed, in the present appointment.

21st November, 1918.—Mr. Diwansing Charatsing Lakhmalani, B.A., Deputy Educational Inspector, Nawabshah, on Rs. 350 per mensem, is granted privilege leave on full pay for six weeks from 12th November, 1918, with permission to affix Christmas holidays to it.

Mr. Metharam Mangharam Bhagchandani, B.A., Assistant Deputy Educational Inspector, Nawabshah, on Rs. 125 per mensem, is appointed Acting Deputy Educational Inspector, Nawabshah, on Rs. 200 per mensem, during Mr. Lakhmalani's absence on leave, or pending further orders.

21st November, 1918.—Mr. S. R. Munshi, Acting Persian Teacher, on Rs. 40—5/2—100 in the Karwar High School, *vice* Mr. M. F. H. Mulla, on deputation as Acting Assistant Deputy Educational Inspector, Ratnagiri, on Rs. 75, is

appointed Probationary Persian Teacher, on Rs. 40—5½—100 in the same school, (vice Mr. Mulla appointed Probationary Assistant Deputy Educational Inspector, Dharwar, on Rs. 75), with effect from 1st December, 1918.

26th November, 1918.—The following appointments, etc., are made, with effect from 1st November, 1918 :—

Mr. C. N. Joshi, M.A., Assistant on Rs. 100 and acting on Rs. 125 in the Training College for Men, Poona, is confirmed, on Rs. 125.

Mr. K. P. Upadhyaya, B.A., Assistant on Rs. 75, in the Surat High School, is promoted to Rs. 100.

Mr. S. B. Dave, Assistant on Rs. 70, and *sub-protem* on Rs. 75, in the Ahmedabad Middle School, is confirmed, on Rs. 75.

Mr. H. R. Bagwe, B.A., Assistant on Rs. 65, and Acting on Rs. 70 in the Ratnagiri High School, is confirmed, on Rs. 70.

Mr. K. G. Joshi, B.A., Assistant on Rs. 60, and Acting on Rs. 65, in the Dhulha High School, is confirmed, on Rs. 65.

Mr. S. V. Kamat, B.A., Assistant on Rs. 55 and Acting on Rs. 60, in the Karwar High School, is confirmed, on Rs. 60.

Mr. N. J. Mujumdar, B.A., Probationary Assistant on Rs. 50, in the Poona Camp Government English School, is promoted to Rs. 55: Mr. Mujumdar to continue as temporary clerk on Rs. 100 in the office of the Controller of Military Accounts, 6th Poona Division, Poona.

Mr. G. R. Shah, B.A., Assistant on Rs. 125 and Acting on Rs. 150, in the Godhra High School, is confirmed, on Rs. 150.

Mr. S. V. Raddi, B.A., Assistant on Rs. 100 and Acting on Rs. 125, in the Satara High School, is confirmed, on Rs. 125.

The lien of Mr. P. G. Limaye, B.A., Assistant on Rs. 80 in the Jalgaon High School, is raised to Rs. 100:

Mr. Limaye having been lent as Head Master of the Municipal High School, Pandharpur, his lien is suspended.

Mr. M. V. Purohit, B.A., Assistant on Rs. 80 and Acting on Rs. 100, in the Poona High School, is confirmed, on Rs. 100.

The lien of Mr. K. V. Acharya, B.A., Assistant on Rs. 75 in the Poona High School, is raised to Rs. 80: Mr. Acharya to continue in the present appointment as temporary Instructor of the Training Class, at Ahmednagar.

Mr. N. H. Barve, B.A., Assistant on Rs. 70 and Acting on Rs. 75, in the Satara High School, is confirmed on Rs. 75.

The lien of Mr. M. M. Bharucha, B.A., Assistant on Rs. 65, in the Surat Middle School, is raised, to Rs. 70.

Mr. Bharucha having been lent as Head Master of the Municipal Edward Memorial High School, Kaira, his lien is suspended.

Mr. B. G. Sahasrabudhe, B.A., Assistant on Rs. 65 and Acting on Rs. 70, in the Jalgaon High School, is confirmed, on Rs. 70.

Mr. K. K. Kale, B.A., Assistant on Rs. 60 and Acting on Rs. 65, in the Nasik High School, is confirmed, on Rs. 65.

Mr. H. J. Mehta, B.A., Assistant on Rs. 55 and Acting on Rs. 60, in the Elphinstone Middle School (G. S.), Bombay, is confirmed, on Rs. 60.

Mr. C. B. Dalal, B.A., Probationary Assistant on Rs. 50, and Acting Assistant on Rs. 55, in the Elphinstone High School (G. S.), Bombay, is promoted to Rs. 55.

6th December, 1918.—The following appointments, etc., are made, with effect from 1st December, 1918 :—

Mr. F. S. Shaikh, B.A., Assistant on Rs. 65 and Acting on Rs. 70, in the Elphinstone High School (G. S.), Bombay, is confirmed, on Rs. 70.

Mr. G. J. Bhatt, B.A., Assistant on Rs. 60 and Acting on Rs. 65, in the Surat High School, is confirmed, on Rs. 65.

Mr. B. G. Naik, B.A., Assistant on Rs. 55 and Acting on Rs. 60 in the Surat Middle School, is confirmed, on Rs. 60.

Mr. U. K. Oza, B.A., Probationary Assistant on Rs. 50, in the Broach High School, is promoted to Rs. 55 : Mr. Oza to continue as temporary clerk on Rs. 100, in the office of the Controller of Military Accounts, 6th Poona Division, Poona.

7th December, 1918.—The following appointments, etc., are made, with effect from 1st December, 1918 :—

Mr. M. B. Ghandi, B.A., Assistant on Rs. 55 and Acting on Rs. 60, in the Godhra High School, is confirmed, on Rs. 60.

Mr. M. M. Oza, B.A., Probationary Assistant on Rs. 50, and Acting on Rs. 55, in the Broach High School, is promoted to Rs. 55.

10th December, 1918.—The following appointments, etc., are made, with effect from 22nd November, 1918 :—

Mr. S. G. Kamat, B.A., Probationary Assistant Deputy Educational Inspector, Sholapur, on Rs. 75, to be Probationary Assistant Deputy Educational Inspector, Sholapur, on Rs. 80.

Mr. N. B. Bakre, B.A., Assistant Deputy Educational Inspector, Nasik, on Rs. 100, to do duty at Bombay, *vice* Mr. Toro.

Vice Mr. Khajapur, retired, Mr. M. F. H. Mulla has already been appointed Probationary Assistant Deputy Educational Inspector, Dharwar, on Rs. 75.

10th December, 1918.—The following appointments, etc., are made, with effect from 1st December, 1918 :—

Mr. L. D. Shastri, B.A., Assistant on Rs. 55 and *sub-promoted* on Rs. 60, in the Dhulia High School, is confirmed, on Rs. 60.

Mr. G. D. Joshi, B.A., Probationary Assistant on Rs. 50 and *sub-promoted* on Rs. 55, in the Bijapur High School, is promoted to Rs. 55.

OFFICE OF THE

DIRECTOR OF PUBLIC INSTRUCTION,

POONA, 18th December, 1918.

J. G. COVERNTON;

Director of Public Instruction.

EDITORIAL NOTICE.

Correspondence and literary contributions are invited from all who are interested in the educational problems of India. Accepted contributions will be paid for. The moderate and well-worded expression of individual opinion will be welcome, and consideration will be given to all criticism which is sound and really genuine—containing nothing offensive, and not being the expression of personal grievance. All contributions must be written on one side of the paper only. Stamps should accompany the MS. if the writer wishes it returned, in case of non-acceptance. The Editor can in no case hold himself responsible for accidental loss. All literary communications should be addressed to

THE EDITOR.

C/O MESSRS. LONGMANS, GREEN & CO., HORNBY ROAD, BOMBAY.

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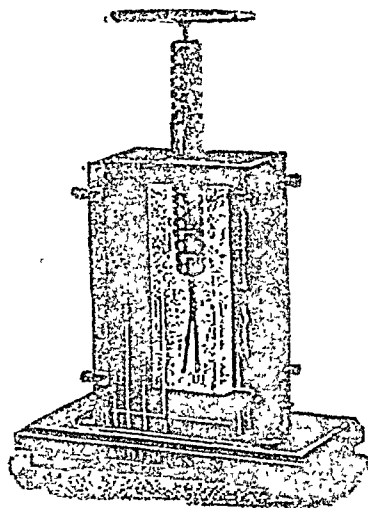
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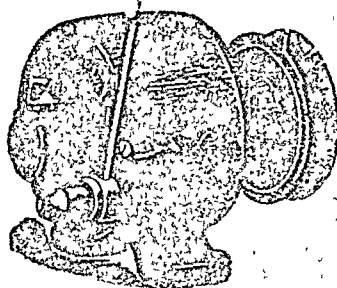
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INDIAN EDUCATION.

Say not that the struggle naught availeth.

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FEBRUARY, 1919.

[No. 7.

EDITORIAL NOTES.

THE Senate has rejected the proposal to amend the B. A. passman's course by the addition of another subject. While we by no means wholly approved the proposed new syllabus, we regret that the Senate should have so definitely rejected the proposal to widen the existing syllabus. The arguments that appear most to have prevailed were, first, that it is not true that the pass student has not enough to occupy him. That is a question of fact that should be determined by collating the number of the passmen's lectures or classes per week at the various colleges, and a report of the *teachers* concerned on the text-books or syllabus prescribed. It is not to be decided by an enumeration of the pages in the prescribed books. Nor is the matter finally disposed of if it be shown that the student must employ his whole time on the prescribed books or course, for the real question is, Is it profitable for him to devote his whole time to so specialised a course? Does the passman want to come forth branded as an inferior grade of honoursman or has he not different aims and need of a more generalised out-look? Secondly it was said that an additional subject inevitably meant an increase in the already too prevalent slovenliness of the students' work and in the superficiality of his knowledge. Now the allusion to slovenliness seems to us as a red-herring. So far as it prevails, and it does prevail, it is as evident in the work of honoursmen as passmen and its presence is due rather to faulty methods of teaching than to the number or nature of the subjects. It has certainly not decreased since the subjects were reduced in number. If teachers do not in the school and earlier years of college-study exact moderately correct spelling, well-formed handwriting, systematic methods and precise forms of expression they will never obtain these things in any B. A. course, honours or pass. Superficiality is a relative term. The knowledge of a first-class M.A. or B. A. is, to put it mildly, an imperfect thing, and what do we now expect of the passman? Not even one-third of the readily attainable knowledge of each subject

and that too when we all know that it is difficult to measure exactly the knowledge of an examinee. A knowledge superficial in the extreme and narrow in range is all that we now demand.

Our main objection to the present system is that it provides only one type of course, the specialised course, and the passman must necessarily incur the stigma of being lazier or more indifferent than the honoursman. We do not think the discussion in the Senate adequately dealt with the matter and we hope that its decision will not be considered final. But the matter is not an easy one and we doubt whether the manner in which this question originated and has been dealt with is the best way of arriving at sound principles and fruitful practices. The usual resource, appointment of a committee, would be useless unless it were composed of members who will really go into facts and study experience elsewhere. We should welcome from our readers informed opinion on the considerations that should govern the formulation of pass courses.

* * * * *

The report of the Calcutta University Leakage Committee and the discussion in the Calcutta Senate on the report must have made the angels weep, if they are not too occupied with the real education of men to read reports on education. To anyone who is not entangled in it the state of higher education in Bengal revealed in these reports and speeches seems like a nightmare. Entrance and degree examination papers prematurely published in the bazaars and streets, bogus papers fabricated for dissemination, organisations to throw discredit on the University, Vice-Chancellors and *ex* Vice-Chancellors, Syndics and Senators bandying mutual recriminations and flinging accusations of carelessness and inefficiency, suggestions of burking enquiry and hints of suppressing or removing evidence, two years of enquiry and no definite conclusion as to a scandal that inflicted serious injury on thousands of students! In the matter of leakage let the University that is without fault cast the first stone. Secrecy is no easy thing to maintain in an oriental country, and the temptations and motives in such cases are strong. But if we are to accept what we are here told, the Calcutta University in this matter has been the not unwilling victim of political intrigue and party faction, not of pecuniary greed or educational dishonesty, and to any sincere and impartial educationist it—we cannot say comes out but—remains with its honour besmirched and its dignity pitifully lowered.

If anything were needed to convince the world of the need of a Calcutta University Commission it would be this.

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A Bombay newspaper the other day asserted that hundreds of students have been refused admission to Arts Colleges from want of room and other causes. We should like to know what is its authority for that statement. Without affirming that there are no students who have not been able to obtain admission, we believe that very exaggerated ideas prevail on this matter. Because fourteen colleges have each reported the refusal of admission to 20 students it is not true that 280 applicants have been unable to obtain admission, for a matriculate refused admission at one College will at once apply to another, and even a third or fourth. If the number that actually fails to find admission is to be estimated, Colleges will have to supply the University with the full names and Matriculation number of all applicants refused and admitted and the Registrar will have a troublesome task to arrive at a correct conclusion. Moreover, not only is it not an educational crime to refuse admission to some students but often in their own interests.

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Proposals for affiliation of new Arts Colleges in this Presidency are multiplying. We hear of new colleges projected at Dadar (Bombay Island), in Salsette, at Amalner, Nasik, Sangli, Belgaum, Dharwar, Hyderabad (Sind). The University has not defined its policy in this matter but it has shown its inclination in the provisional recognition of the Karnatak College at Dharwar and the Sarvajnik Society's College at Surat. The question that fronts the University is, what is to be the process of its development. Is there to be a single University with affiliated colleges either grouped at certain centres or scattered broadcast through the Presidency? Or is the University to look forward to its own ultimate division into three or four Universities at Poona, Ahmedabad, Dharwar and Karachi. In either case it is of the greatest importance for it consider the grouping of its colleges. We do not believe that the University will encourage haphazard college growths but we wish it would lay down some principles to govern the selection of the shoots that it will allow to grow. In this connection the report of the Calcutta University Commission will be of great interest and may help to determine the policy of the Bombay University.

EDUCATION IN ENGLAND.

THE NEW ATMOSPHERE IN EDUCATION.

THE President of the Board of Education is offering himself for election to the new Parliament as a representative of the combined constituency made up of the graduates of the Northern Universities. His record is considered to give him a strong claim to the votes of such a constituency since during a brief parliamentary life of two years he has succeeded in piloting a very important education measure to the Statute Book and has also brought about a great improvement in the salaries of teachers, together with a scheme of pensions which is welcomed as being a remedy for a long standing grievance. During his career as Minister of Education, Mr. Fisher has laid the foundations of a new system and has done much to provide the conditions indispensable to its successful working. His efforts have been greatly helped by the general feeling, brought about by the war, that our schools must occupy a prominent place in the future development of the Nation and it is extremely gratifying to note that the great majority of our local education authorities are keenly desirous of setting up schemes in their districts which shall be greatly in advance of anything hitherto attempted. This applies especially to our larger cities and in Sheffield, for example, many changes have already been brought about which anticipate the coming of State compulsion and are marked by a spirit of earnest civic patriotism. In Manchester also the Director of Education, Mr. Spurley Hey, has been busily engaged in making plans for the future working of the Act. It is noteworthy that in the textile districts it is already recognised that the abolition of half-time will be beneficial and throughout the country there is no disposition to oppose the limitation of child labour. The education authorities are now busy in revising their scales of salaries in accordance with the recommendations of the Departmental Committees but on this matter there is a growing feeling that something in the nature of a national scheme must be prescribed by the Board of Education. The reason for this demand is illustrated by the fact that in different districts, teachers engaged in tasks precisely similar in character may find themselves paid according to a scale with a maximum which may vary between £180 and £300 a year. It is sometimes urged that those authorities which offer a low maximum salary will find themselves unable to obtain teachers but to this it is replied that the operation of this economic rule is slow and in the meantime the teachers are penalized. Hence comes the suggestion that a general minimum scale should be prescribed with an accompanying instruction that local authorities may offer beyond the scale according to local circumstances. It is not unlikely that a national scale may be brought about by the operation of the Pensions Act since this measure provides that the superannuation allowance shall depend upon the salary received in the last years of service and it will be impossible for authorities to maintain a supply of teachers if by paying a low maximum salary they diminish the teacher's pension. The tendency will be for authorities to arrive at some agreement as to the salaries they shall offer, with or without any suggestion for compulsion from central administration.

DISABLED SOLDIERS IN TRAINING.

Apart from the schemes mentioned in my last communication which are intended to furnish a means of training for disabled soldiers

who wish to take up the work of teaching, there are in prospect several other schemes for the benefit of soldiers who desire to learn new trades. These projects are receiving the hearty co-operation of employers and education authorities since it is felt that no effort should be spared to enable the returned soldier to obtain useful and profitable employment. An example is supplied in the work of the Cordwainers' College, Bethnal Green, London. This College was established by the Cordwainers' Company for the purpose of giving a technical training in the manufacture of leather goods and during last year one hundred ex-soldiers who had been discharged from the army as physically unfit for further service; were trained in the making of boots and shoes. Many of them are now able to satisfy the demands of the best London shops where they can earn the full trade union rate of wages by reason of the first class work which they can do. In the same College other men have been taught the making of fancy leather goods such as purses, pocket-books and other articles which were formerly imported in large quantities from Austria. The College has thus been able to provide a means of livelihood for many men who would otherwise have drifted into the ranks of illpaid casual labourers. Similar enterprises are being started in our large provincial towns, the experience of the war having shown that the learning of a new trade is by no means the long and arduous business that it was commonly supposed to be.

COMPULSORY ATTENDANCE.

The Board of Education has already announced that certain portions of the new Act are to come into force at once. Of these, one of the most important and far reaching in its effects is the provision that the legal requirements as to school attendance shall not be held to be fulfilled by the mere fact that a child is shown to be attending a school. It is now required that the school shall be one which is open to the inspection of the local authority or of the Board of Education, that it is regarded as a place of efficient education and that the attendance of scholars is duly recorded in registers kept for the purpose. Hitherto, the local authorities have found it somewhat difficult to carry out their statutory duty of enforcing attendance at schools because the magistrates have usually held that attendance at any school satisfied the law unless it were shown that the school in question was inefficient. Since a privately conducted school was not open to inspection and was not compelled to keep any record of the attendance of its pupils, the local authority was in most cases unable to prove that it was not efficient. Under the Act, however, the burden of proof will rest upon those who conduct the school and there is placed in the hands of the local authorities a powerful instrument for securing the suppression of ill-conducted schools. It will, however, leave efficient private schools unharmed and it is generally agreed that the owners of such schools have everything to gain by accepting a measure of state supervision. It is unlikely that the local authorities will be able to act very drastically at once since for every school that is closed they will be required to provide corresponding accommodation for the pupils who are excluded and the entire suspension of building during the war has left vast arrears of school accommodation to be made up.

FREE EDUCATION.

An important feature of the policy formulated by the Labour Party is the provision of free education at every stage from the kindergarten

to the university. Briefly, the argument adduced in support of this policy is that many children of great promise and ability are compelled, through poverty, to enter upon wage earning at an early age and are thus prevented from developing their powers to the ultimate benefit of the community. Apparently, it is not suggested that everyone should take a university course but it is urged that at each stage, a sufficient supply of scholarships and maintenance allowances should be available so that no one need be debarred from the advantages of a good education provided only that fitness to profit by the education is proved. It is urged that to carry out this policy a very large number of national scholarships should be provided and that there should be a corresponding increase in the provision of secondary, technical and university education. The city of Bradford has already begun to take action on these lines for it has provided a number of secondary school and university scholarships to be obtained by children who have shown themselves to have ability. It is admitted that there are many difficulties in the way of carrying out a national scheme. To begin with, it is not easy to detect latent ability in the early stages of a child's school career and no system can be regarded as satisfactory which does not give opportunity for those whose intellectual development comes tardily. In practice, also, many difficulties arise where free scholars are introduced into institutions where fees have hitherto been the general rule. Many parents in England seem to be willing to pay high fees, not so much because they desire that their children shall have the very best education as because they desire to have them educated under special and secluded conditions. The Board of Education already makes it a condition of grants that a state aided secondary school shall admit a certain number of free scholars from the public elementary schools and this condition has been rejected by many secondary schools on the ground that the admission of such free scholars would displease the parents of the fee paying pupils. The objection appears to rest on social prejudice but in some cases it is entirely overcome where the free scholars are received as boarders.

SCHOOL BUILDING AS WAR MEMORIALS.

An interesting suggestion has been made to the effect that the most appropriate form of war memorial in a district or city would be a school building and it is proposed that funds should be raised for the erection of new schools where required, these schools to be regarded as memorials of the war. Another proposal of a somewhat different character is that there should be erected in London a building to symbolise the importance of education which should serve as the headquarters of the teaching profession and also as a centre for overseas teachers visiting this country. Such a building would provide accommodation for the offices of the Teachers Council and for those of many of the associations of teachers which need offices in London. Conference Halls and Committee Rooms, a Library and the ordinary conveniences of a Club might also form part of the scheme and the whole building, it is suggested, would furnish an appropriate memorial to the thousands of teachers who have lost their lives on the field of battle. Both these proposals, the school building project and that of a central building for teachers, have the great merit of providing a form of memorial which will serve a useful and appropriate purpose instead of being mere costly monuments.

THE TRAINING OF TEACHERS.

The Board of Education has recently made a notable departure in the form of its regulations for the training of teachers. Formerly these were issued as a series of separate pamphlets dealing respectively with the training of teachers for public elementary schools, the training of teachers for secondary schools and the training of teachers of domestic subjects. The regulations, as laid down, varied in the different cases and the whole arrangement implied that the various branches of teaching work were in some way severed from each other and could not be brought into closer relationship. Formerly, indeed, it was provided that a teacher who had received a training in a college intended for the preparation of teachers for public elementary schools could not undertake work in a secondary school until the expiration of a prescribed period or until he had paid a sum of money to the Government. The new scheme abolishes all such distinctions and the regulations for the training of teachers are brought together in one volume. Henceforth it will be possible for one who has been trained in a college intended for elementary school teachers to take up work in a secondary school. It will be possible also for an elementary teachers' college to provide a special course of training for secondary teachers while the college for secondary school teachers may provide a course of training either in the teaching of domestic subjects or in the work of elementary schools. This marks a definite approach towards the ideal of a united teaching profession. This term is often misunderstood to mean a uniform teaching profession but it is impossible and undesirable to seek uniformity in methods of training teachers. We should rather seek to secure for each branch of teaching work an adequate standard of attainment and technical training so that all teachers may be regarded as fully qualified for their particular work and free to move as their abilities may warrant from one branch of the work to another.

PARENTS' UNIONS.

In some parts of the country a systematic effort is being made to enlist the co-operation of parents in the education of their children. This is the result of one section of the Education Act which provides for the views of parents being ascertained in connection with the preparation of schemes of education in each area. It is obvious that if the real views of the parents are to be ascertained the machinery for the purpose must be built up gradually and it is suggested that in connection with each school or group of schools a parents meeting or union should be organised. This should consist of all parents of the existing pupils of the school and parents of past pupils might also be invited to be present. The union should make recommendations to the Education Committee, holding its meetings at regular intervals and being empowered to call in consultation the teachers or managers of the school from time to time.

FRANK ROSCOE.

THE PROBLEM OF SECONDARY EDUCATION.

FOR the last twenty years we have been hearing on all sides the complaint that the level of secondary education is going down. It is doubtful however how far we realise the meaning of our words when

we are talking about the degenerate condition of secondary education. We often read lamentations in newspapers that the present educational system no more produces men of the type of Ranade and Telang, Navaroji and Mehta. There are others who talk of the lower level of college students and suggest that it is all due to the inefficient teaching in secondary schools.

Such arguments are often fallacious. Ranade, Telang, Navaroji or Mehta were not mediocrities in their days. They were the brightest students of their time and it is unfair to compare with them an average student of to-day. For comparison with them we must take those who have recently stood high in the University Examinations, and it will be found that the intellectual attainments of the latter are certainly not lower than those of the old leaders whose names are usually cited for comparison. In some few cases they may be actually higher. It is true that they have not the good fortune of being as famous as Ranade or Mehta, but it is not their fault. It is not so easy now to get a seat in the front rank as it was some forty years ago.

It will thus be seen that it is absurd to persuade ourselves by such fallacious comparisons. The proper method will be to compare an average student of to-day with an average student thirty years ago, but it is obviously an impossible task. It is not so easy to pick out a boy of average intellect as it would be to pick out one at the top. The only course open to us therefore is to depend more or less on the dogmatic assertions of those who have spent the best part of their life in the teaching profession and had an opportunity to observe different sets of students in different stages of development. We must however be very careful here to convince ourselves about the fitness of the speaker to express his opinion in this matter. It is a fashion in all countries and at all times to praise old boys and to decry the present ones and even a teacher is no exception to this rule. The class in which he studied was always so good and the class he has to teach now contains so many dunces! Being a tolerably good student himself, in his school days he associated with the better lot in his class, but now it is the worse part that requires greater attention from him.

These difficulties are enumerated here to warn the reader of the possible pit-falls in such discussions. But when they are noted and the necessary precautions taken the fact remains that the level of secondary education has gone down. This is no new question and has been agitating the minds of educationists for the last thirty years at least; there is however a great difference between the phases of the question before 1900 and after. Before 1900 the discussion probably had not much real basis and was started by educational enthusiasts who wanted to see the standard of education raised higher. Since that date however owing to causes enumerated hereafter and others left unobserved the level of secondary education has been slowly going down.* By the level of

*A friend to whom this paper was submitted for criticism, disputed the assertion that the level of secondary education was going down. As we have said in the beginning this must be more or less a matter for personal opinion and cannot be easily proved by any outside evidence. There are ten others who support our views in the most emphatic terms. No one, however, not even the above friend, has denied the existence of the causes or that they have worked ruinously for the last twenty years. This is quite sufficient for us. Remove the causes and it is immaterial whether the contention is accepted by many or by few.

education we do not mean that of the few at the top. The flood-tide mark is as high as before, if not a little higher. We are referring here to the level of the average student when we say it is going down.

Before a doctor prescribes any remedy he proceeds carefully to diagnose the disease. What has so far been said is intended to lead to a proper diagnosis of this educational distemper. If it is the top few that have suffered; the remedy will be to improve the curricula and raise the standard of examination. If it is the average many who are suffering then this remedy instead of curing, might aggravate the malady.

Now that we have made a diagnosis and discovered that it is the average many who are suffering let us proceed to study the causes of this condition. Of course there are the ordinary causes that will always tend to keep down the level. Bad equipment, untrained teachers, insufficient money, absence of educational traditions have no doubt hampered the advance of secondary education in this country. But these causes which are very important when comparing the schools in this country with those in Europe or America lose their significance when a comparison is instituted between the schools of to-day and the schools some twenty years ago. The equipment in schools now is about three times better than what it was in 1898. The present teacher has certainly better manners, often greater intelligence and academical qualifications and is also better acquainted with the requirements of his profession even if he is not an S. T. C. or an S. T. C. D. The expense on secondary education is nearly doubled and there are now better educational traditions established in this Presidency. If the educational level is going down in spite of these advantages we have to look for the causes somewhere else.

The importance of proper diagnosis can now be better understood. What is it that is to be remedied? If the system of education for the last twenty years has not satisfied us and if the development has not been as rapid as we would have it, the remedy will lie in better equipment, more trained teachers and a liberal educational budget. If this is all that is wanted it need not make us anxious. It is a feeling shared by all progressive countries and there is no reason why India should be in any way unlike them. But our anxiety is not that we have not gone as high as we would, but that we have actually gone down. The complaint is not that the secondary schools have not progressed as much as they should have, but that they have actually degenerated. This is not an ordinary disease found in progressive countries and it would be wrong to pick out causes and remedies from them. It is an abnormal condition created by abnormal causes. An attempt is made below to discuss some of these causes and suggest remedies.

In their chronological order the first cause that operated on secondary education of this Presidency and caused it to deteriorate, is the insufficient preparation of the pupil before he takes to his English education. It is also the most important. In the good old days of Ranade and Telang almost every student completed his six vernacular standards before he joined the English school. In so doing he apparently wasted two years of his life but he found himself in the long run a gainer by the arrangement. In the lower standards he had nothing but English to master and a clever student often skipped over a year or two. Having learnt Indian History, Geography, Grammar, and Arithmetic in his own

vernacular the difficulty of a foreign medium did not come in his way so much as it does in the way of the present student. The new subjects English History and Geometry, though taught through a foreign medium, were introduced late in standard five, by which time a little mastery over the English language was obtained by the pupil. From 1890 to 1900 things did not change much. Instead of the sixth vernacular standard the boys completed only the fifth standard before going to the English schools. This did not produce much difference between the grasping power of the boy who completed his fifth vernacular standard and that of one who completed his sixth. Such change as it made was for the better as it saved one year.

But about the beginning of this decade the Educational Department had allowed admission into English schools of boys who had completed their fourth vernacular standard. This had not yet much effect in the Mofussil but in the cities there was a marked tendency to take advantage of the permission. There was a noticeable difference between the development and grasping power of the two sets of pupils. Those who came with only four year's preparation in the vernacular schools were puzzled to see the other boys using English and Marathi maps with equal facility and solving examples from an English arithmetic without much difficulty. It was certainly not their superior mastery over English that gave them the advantage. They had already learnt the subject and they had to master here only a few technical terms.

The number of these raw boys gradually increased and with it the level of knowledge admittedly went down. But the evil was slow, it was observed and provided for by careful heads of secondary schools and if other causes had not intervened it might not have taken the serious turn it has now taken. At this time the Department revised the primary standards and the old six years' course was now expanded into seven years and then the fourth standard was no higher than the old third standard.

The unpreparedness of the boys entering the English schools now reached its limit. The evil was further aggravated by the fact that there exists at present a thick water-tight partition between the Primary and the Secondary schools. The head-masters of Secondary schools were in most cases in blissful ignorance of the inferiority and the lesser preparation of the boys they now admitted to their schools. The class-teachers often wondered at and complained of the rawness of their pupils but it was beyond their powers to guess that they were feeling the effects of the changes made by the department in the Primary course. Things have probably improved now as those on whom the changes first operated are working as teachers. We can however still hear some surprising answers from the teachers in charge of first and second A. V. standards if they are questioned about the preparation of their students. What teaching can be effective if the boy wants one thing and the teacher is teaching something else? The most serious defect in secondary education in this Presidency, the use of a foreign medium, tells heavily on these raw boys.

The next factor in order of importance as well as in chronological order is the appearance of plague. From 1896 to 1910 the plague has annually visited all important towns in the Central Division and even now the visits are not quite stopped. Poona, for instance, has had an

annual visit almost without exception up to 1910 and since then the visits have been once in two or twice in three years. This annual visitation terribly dislocated the work of secondary schools in Poona and other places. In most cases the schools were closed for more than four months during the plague season. Even in the case of those few schools that remained open during this period very few boys could take advantage of them. In the case of the Poona New English School, while the usual attendance was 1,000 or more, the attendance in plague days dwindled down to 200 or less. Apart from the loss caused by the change of staff, anxiety, and disorder the average student lost four working months in a year and this tended to keep him raw. The evil has been of such a magnitude that to meet it, a joint effort was necessary from the schools, the Department and the guardians. But it was only the schools that recognized their duty and in their feeble way tried hard to ward off the evil. The Department appeared not to notice it and the guardians as a rule have been very imprudent. The school authorities took into consideration that a boy's failure was due to his non-attendance and not to his want of intelligence and often promoted a really good boy even if he failed in some minor heads. The guardians were not always satisfied with this concession and some got their wards promoted to higher classes by importunities, while others more careful provided for private tuition some two months before the examination. This latter alternative is not as free from objection as would appear at first sight. First of all it is not quite proper to pull up a boy by forced efforts a few days before the examination. Secondly the teacher employed was often the boy's class teacher and as often as not he saw that the boy passed or got smuggled into the higher class. It should be remembered here that this statement is not made about teachers as a class; but it cannot be denied that such cases are not rare and this fact must be recorded, painful though it is.

The effect of all this will be obvious. The boy ostensibly spent seven years in a high school but really studied there only for four years. When he therefore appeared for the Matriculation examination his development was no better than that of a boy in the fifth standard, and in some cases lower than that. A raw student does not generally meet with great difficulties in getting promoted in lower classes. The task only becomes difficult in his own school where he is too well-known to be promoted. The ingenuity of such a student however in devising methods for promotion is remarkable. He is also helped in this by pirate schools; there are always one or two such schools in big towns in spite of the vigilance of the Department. When he reaches the seventh standard however the way becomes so narrow and so little amenable to influences that his forward march is effectively arrested. He then rots for two or three years and leaves the school or if he passes after repeated attempts his intellect has been blunted and he is incapable of receiving any higher education. It is these students that have brought disgrace to the secondary schools but they are not alone to be blamed in this respect. The chief share must go to those whose duty it was to take measures to ward off the evils of plague and who have not done it.

Next in order comes the introduction of modern methods. This would appear at first sight a foolish statement not worthy of one who proposes to write on educational matters. But what we protest

against is not the importance or the necessity of introducing new methods of teaching in secondary schools, but their irrational use. Method is like a sharp instrument and in the hands of well-trained teachers it has produced excellent results ; but such teachers are rare. An emery wheel is excellent for grinding a chisel ; it is superior to the ordinary grinding stone. But if the grinder does not know how to use it, the instrument he grinds will be destroyed long before he is aware of it. If we do not have time to show him the proper method of using an emery wheel, it is safer to allow him to use the old grinding stone. It will be foolish to force on him the emery wheel. The department has actually done this in the schools of the Presidency. They have tried to force new methods of teaching English, History and Geography and these subjects have suffered most. They have let alone Mathematics and Second Language and they have suffered least. What better evidence is required to prove that in secondary schools an irrational use is being made of modern methods ?

The question is so important and educationists have acquired such prejudices in this connection that it is necessary to devote more space to it. Let us take the case of English teaching. In 1904 the late Prof. Fraser travelled over Germany and observed the wonderful effects of the direct method of teaching modern languages. The Secondary Teachers' College was the out-come of his report. This is no place for criticising this college but this much may be said without any fear of contradiction that it has shown little improvement during the last twelve years and has never been an institution comparable with similar institutions in other Presidencies. The chief work done here was that of training teachers in the use of the direct method of teaching English. Till recently Prof. Fraser himself candidly confessed that he was only experimenting and it is no wonder that all the S.T.C.D.'s from the college with few exceptions left it without much confidence in their ability to wield the method effectively. Even in the Government schools where all the teachers are now trained men the method is not very successful. The private schools for a long time persisted in the use of the old method of translation but under constant pressure from the department a few yielded and many have added a show of the direct method for the satisfaction of the Inspector.

To appreciate the evil we must watch for weeks the work of a self-made teacher of the direct method. He has read Wren's books, has observed the class drill of Prof. Fraser and has gathered that the main features of the method is to ask questions. He can arrange a show for the Inspector, can repeat it in the second and third standard but there he stops. He has not the imagination to extend it, nor is he taught how to do so. He himself learned grammar and explanation as separate subjects. Now that he is asked to introduce grammar while explaining he forgets to do it. He cannot vary his method from year to year, or from class to class. Instead of intelligent variation we observe a dead uniformity. It was expected that in three years a boy would master as much English as he mastered of his own mother-tongue when he was a baby. Except in some English schools this has not been accomplished by any school as yet.

M. R. PARANJPE.

(To be continued.)

DECIMAL COINAGE.

IN June last, a bill was placed before the House of Lords, called the "Decimal Coinage Bill", which proposed to introduce into England a form of decimal coinage commonly known as the pound-mil scheme. The bill was shelved, not because the members of the House of Lords disapproved of the decimalization of the coinage, but because they doubted whether the scheme put forward was the best. In consequence a Royal Commission was appointed, which commenced its sittings in the middle of October last, in order to consider once more the whole question of introducing into Great Britain a decimal coinage. That the report will be favourable we need have little doubt, but it is very much open to question whether it will be possible to arrive at any real decision on the merits or demerits of the various schemes put forward from time to time, without entering on very much larger issues, namely the correlated question of endeavouring to obtain an international gold standard and thereby simplifying the problems of international exchange and trade, as well as the still more complex question of introducing the Metric System into England in its entirety.

How many of us realise that, to-day, Great Britain is the only country in Europe that has not adopted a decimal form of coinage? Does it not appear that a certain innate spirit of obstinacy affected our ancestors, a feeling perhaps of possible humiliation in adopting the institutions of foreign nations in whole or in part, that prevented us from adapting ourselves to the world's requirements a century ago; or was it a feeling that we could maintain our commercial supremacy and in fact compel the universal adoption of our standard if not of our language amongst those nations who desired to trade with us; and unfortunately for the present and future generation of Englishmen we have succeeded in the past and only to-day can we contemplate failure in the future. The decimal system of weights and measures, commonly known as the Metric System, originated in France in 1790, when the National Assembly passed a decree for rendering uniform the system of weights and measures then prevailing, which were at that time in a chaotic state owing to the different standards prevailing in the various provinces. The Academy of Sciences appointed a very able commission consisting of Laplace, Lagrange, Borda, Monge and Condorcet to determine the base of the new system. This commission carried on its labours for seven years, chiefly in determining with the utmost possible precision the length of a meridian of the earth's surface, on which the length of the new metre was based. The Metric System was legalised in France in 1801, but it was not until 1840 that the old weights and measures completely disappeared under legal penal enactments. The system has been adopted also in Belgium, Italy, Spain, Portugal, Germany, Austria-Hungary, Greece and Roumania (exclusive of the monetary system which forms no part of the Metric System) as well as in most of the Republics of South America. The coinage system that to-day prevails in France and has since been adopted by the other states forming the Latin Union, namely, Belgium, Switzerland, Italy and Greece, was created in 1803; the United States of America introduced the dollar as their monetary unit in 1792 and decimally divided it into 100 cents and nearly every other country in the world has decimalized its coinage at least, either adopting the standard of the Latin Union or the

dollar-cents of the United States, excepting only that Great Britain, her Colonies, excluding Canada, and India alone remain with their ancient coinage systems unchanging and unchanged. And if England is about to change, will she take the great plunge into the ocean and affect a complete and sweeping change of all her anacronisms or will she just dive into the shallow water and emerge after slightly readjusting her coinage system to her own needs entirely regardless of two other fundamental systems that now prevail in the world. By this great plunge, I mean will England at this critical time take upon herself the task, so frequently unsuccessfully attempted in the past, of unifying by arrangement the gold standards of her own and the allied countries, by creating one gold coin of the same fineness and weight, to be freely tendered and accepted in all countries in the Union, but differing of course in the inscriptions and design on the obverse and reverse according to the country of issue : for this is a factor that should govern our choice of a new coinage scheme rather than the peculiar advantages possessed by the pound-mil or dollar-cent schemes, both excellent in their way and capable of universal adoption ; but as neither is at present international, their convenient relations to our present coinage should not preclude us from examining the advantages to be obtained from joining the Latin Union, especially if there was any possibility of the American Union in these critical times of reconstruction and international aspiration for unity joining in a movement which would for ever remove the multiplicity of coinage and other systems at present existing in the world.

The first attempts to unify the monetary systems of the world were made at the Statistical Conference in Berlin in 1863 and again at the Paris Conference convened by Napoleon in 1867 to consider a programme for international coinage ; this was before the price of silver had begun to fall and was therefore previous to those ideas of bimetallism, the discussion of which has wrecked every subsequent monetary conference. A general sacrifice all round was what was required in 1867, France to have adopted a standard gold coin of the value of 25 francs, England to have reduced the value of the sovereign by 2d. America to have reduced the half eagle by 3½ per cent. and the world would then have had a standard gold coin, universally current, and the present question of decimalizing our coinage would have presented no difficulties. There can be little doubt that had England at that time been interested in creating an international gold standard, this conference would probably have succeeded in achieving that object and this would have been a lasting result that would have been unaffected by the subsequent depreciation in the value of silver and the consequent introduction of the thorny problems of bimetallism. An Englishman's pride in his standard coin, the sovereign or pound sterling, is fully justifiable ; the sovereign has a long and honourable history ; first minted in 1489 by Henry VII, never debased, it is typical of English commercial probity and political stability : universally accepted all over the world, it has nevertheless not been adopted as a standard coin by other nations and it still remains to be seen whether England will only consent to an international standard if that standard is the sovereign, or whether in the cause of internationalism, England will submit to the sacrifice and consequent inconvenience of a change in her standard, with a correspondingly much greater inconvenience on the part of the United States, and

call in and remint the 880 millions of sovereigns that are at present scattered all over the world. The problem is a very much more serious one to-day than it was in 1867: there still remains the possibility of realising the absolute equivalence of a 25 franc piece, the sovereign and the five dollar piece: but to-day there are also possibilities of even more radical and beneficial changes. Gold has recently appreciated in value, a very large proportion of the world's gold coinage is at present locked up, the actual amount in circulation being very small, and it would appear quite feasible to maintain the appreciation of gold by regulating the output from mines by taxation even if the want of gold does not in itself maintain the present situation. Thus the problem of wholesale recoinage amongst all participating nations would be simplified, as a complete change of standard could be effected, which at any other time, or if adopted by one country only, would amount to debasement. If this could be effected by international agreement, the best solution would probably be the adoption of the Latin Union coinage system in its entirety, that is as regards an equivalent and consequently interchangeable gold coinage.

(To be continued.)

A. C. L. WILKINSON.

THE VALUE OF EXAMINATION.

IS examination a test of merit? The question is not a new one. It has been put and answered over and over again in many quarters from many standpoints, oftener, however, in the affirmative than in the negative. But of all the controversies that it has given rise to in the history of education, perhaps the most remarkable is one that arose in England in the late eighties. A huge protest against examinations was signed by hundreds of well-known personalities in every walk of life, Members of Parliament, publicists, authors, lawyers, physicians, and scholars of the eminence of Professors Max Muller, Freeman, and Frederick Harrison. This evoked a spirited rejoinder by Professor Knight and a few others. Both the protest and the counter-protest, however, do not seem to have produced any great practical effect since things remained as they had been.

Professor Patrick Geddes's recent report on the proposed Central Indian University has given a fresh impetus to the question. Professor Geddes is a strong advocate of "Estimation" as opposed to "Examination", and he puts his case in the Report, though only incidentally, with his usual vigour and penetration. His views, as was to be expected, have found no favour in the official camp, among those who stand as sponsors to the present educational system of India.

It may not be wholly futile at this juncture to examine afresh the *pros* and *cons* of examinations with special reference to Indian conditions and to try to come to a conclusion that may not be unfair to either of the opposing parties.

To begin with, it is contended by nobody that examination is an end in itself. Everybody admits that it is a means to some end. Whichever way we turn we are confronted with the problem,—how to secure the best men for such and such a post? The supply of the most competent man or men is the real object. Examination is a test of the requisite standard of competency.

So far all are agreed. But is it a fair test? Is it absolutely necessary? Is there no better test available? These are the questions that receive different answers from different quarters. Let us first look at the objections which the system of examinations in vogue is, or may be said to be, liable to.

First of all a comes *the misdirection of education*. Under a rigid system of examinations, students, even capable ones, are apt to think, and quite naturally, that the aim of education is not to acquire knowledge but to enable them to win some coveted prize or to take some distinguished place in the class or the University. Thus the examination which is admittedly only an instrument usurps in practice the place of education itself and thereby the end is sacrificed to its means.

Secondly, *physical mischief*. Mental over-strain is an invariable concomitant of examinations. This stunts the physical development of students, and mars the healthy animal side of their growth.

Thirdly, *moral evils*. As a corollary to the above, it is alleged, mental over-work brings in its train also peculiar moral dangers, especially where boys are massed together.

Fourthly, *monotony of the outlook*. The absolute uniformity of the standard to which all are required to conform makes the teacher void of intelligent self-direction. His mental horizon becomes extremely narrowed and his sympathies cramped.

Fifthly, *the arrest of educational growth*. Education as a living science needs continual difference, new ideas, new experiments. Under the examination regime, on the contrary, all education must necessarily be of the same type which means the arrest of the growth of educational science.

Sixthly, *the neglect of the rational faculties*. Cramming for the sake of securing good marks gives a temporary strength to the faculty of memory only at the expense of the reason.

Seventhly, *the rapid forgetfulness of knowledge*. Forcibly memorised knowledge is bound to slip out of memory as soon as the immediate need for retaining it is over.

Eighthly, *incapacity for original work*. Habits of superficiality and skimming of subjects and continual dependence on extraneous guidance tend to make the mind incapable of undertaking any work of research or originality.

Ninthly, *mental indolence*. The constant practice of working with the sole object of winning prizes is sure to create a mental disinclination to undertake any work which is not of a directly remunerative character.

Tenthly, *dissipation of energy*. Diffusion of energies over many subjects frequently unrelated to one another in order to swell marks is a direct outcome of the system in vogue.

Eleventhly, *waste of time*. On the part of the teacher also there is a waste of very precious time in the drudgery connected with examinations.

Twelfthly, *futility of the test*. It is almost impossible to judge of the worth and merits, actual as well as potential, of an individual within the traditional compass of three hours by putting to him at a particular time

and a particular place a particular set of questions on some particular book. Thus the examination defeats its own end,—the estimation of merit.

These are the main specific charges that are (or may be) brought against the system of Examinations in vogue. All of these positions are not equally invulnerable. Some of these may be easily met in a general way by pointing out that they are not peculiar to the examinational system alone. Overpressure of mental work and the consequent physical and moral mischief, for example, is sure to accrue wherever there is an agglomeration of boys and congestion of work whether examinations continue or go away.

Still the bulk of the above charges is not so easy to meet. Let us now see what can be said in defence of the current practice.

It is said in the first place that examination is an absolute necessity. We have only 10 posts to distribute among 100 candidates. The perpetual problem is, how to sift the better from the worse? To make a personal estimate of the worth of all candidates is manifestly out of the question. An examination test alone is practicable.

Again educational "home-rule" is not an unmixed good. The teacher's unrestricted liberty in the choice of his methods may as often be a curse as a blessing. All teachers are not geniuses. They have quite a fair share of mediocrities amongst them. It is far safer therefore to work according to a plan prescribed by superior educational authorities and to conform to the regulations formulated by them than to trust to random desultoriness.

Next, it is said there is no means of ascertaining that a careful and thorough mastery of the subject has been obtained unless the test be applied by others than those who have taught the pupils.

Further, it may be urged with reason that estimation by the teacher, as distinguished from examination by an outsider, is not invariably fair. Long association between the teacher and pupil is apt as often as not to mislead and prejudice the former. A previous knowledge of the personalities and circumstances of the examinees makes the teachers, in some cases at any rate, pre-judge their work and it is quite possible that while a student's character and abilities may have changed with years there may not have occurred any corresponding change in the tutor's idea of him formed in the beginning.

Such are the chief considerations, so far as the present writer can see, put forward by the supporters of the existing regime for its continuance, and they cannot be airily dismissed as having no weight. They do possess some weight, but is it sufficient to counterbalance the objections? Hardly.

A calm and dispassionate view of the preceding criticisms and counter-criticisms will perhaps reveal that there has been a curious confusion of ideas on both sides. The real point has been missed in the heat of controversy. What the critics should really object to is not the examination as such but its prevalent method—its rigidity, its indiscriminateness, its finality and the like vicious tendencies. Similarly the supporters instead of meeting the points raised by their opponents directly have mostly taken shelter behind a clever camouflage.

It is admitted by the supporters of the present regime that very little can be said as to its intrinsic merits, but that being in the nature

of a necessary evil it has to be preserved as no better substitute is forthcoming. The mischief is there, but there is no help. The evils are acknowledged, but there is no alternative.

Is then the problem insoluble? Is the dispute between the reformers and the conservatives to continue? Is reconciliation impossible?

By no means. Happily it is within the bounds of not merely theoretical but practical possibility to retain with certain modifications the current system of examinations minimising at the same time the evils involved in it to a vanishing point. The following few constructive suggestions may contribute a little towards the solution of the problem:

In the first place, examination is not in the least a fair test for the student who is above the average. For the mediocrities no alternative may be practicable, but it is cruel, exceedingly cruel, to subject the really clever and promising student to the same ordeal. For him surely recourse must be had to some better test. Professor Max Muller was perfectly right in differentiating between the two classes of students,—the many, and the few. For the clever few the teachers' estimation is quite enough. Let there be great latitude in subjects for such students. Let the teacher's competency also be beyond doubt. Then there will be no great practical difficulty. A teacher's certificate at the end of these students' career should do quite well, and it should be held as equal to the highest University Honors and distinctions. The point is that memory-tests, cram and commonplace should here give place to the exercise of the faculties of observation, reasoning and research (even though the 'research' does not go beyond the elementary stages).

As regards the many, too, the rigidity of the examination system should be relaxed. Examinations should be less frequent, less mechanical, and less monotonous. The only object that an examiner should have in view should be to test what the student knows, not what he does not know,—the extent of his knowledge, not that of his ignorance. In the present state of things examination papers, not text books, have come to be the real subjects of study, and the aim of the student has become to get an insight into the mind of the examiner and not that of his teacher. This has given rise to a tremendous number of note-books and "Examination-guides" whose avowed aim is to enable student to pass the tests and consequently to checkmate the examiners. Thus the art of education is entirely lost under the sheer weight of the two specialised arts, first of examining the ignorance of the pupils and secondly of dodging the examiners. These evils can only be remedied if the examinations become more searching than they are now.

The incessant frequency of the examinations is also largely responsible for the mischief done. Multiplicity of examination has reached such a pitch that students have quite naturally come to consider these as the very end of their school and college life. Constant examinations in fact leave students no time to look to their studies. To meet this evil examination should be very occasional, better still if they are held only at the end of some prolonged educational curriculum.

Strict uniformity of standard required of all examinees is again a positive hindrance in the way of acquiring knowledge. Considering the inevitable differences of mentality and temperament in the large number of examinees great latitude should be allowed to examiners. As remarked

by Frederic Harrison the less the students be technically prepared the better, and the more free the examiner is to use his own discretion with the individual examinee, the more likely is he to judge him fairly.

As the questions are set at present, at any rate in the Indian Universities, who can doubt that Spencer would be plucked in the Philosophy paper? Mill would surely get exceedingly low marks in the Logic paper as, in ignorance of the rules of races and prize-winning, he would barely find time to finish his answer to a single question within the prescribed time. Even a Grote or a Gibbon would not be able to give all the dates of the Greek and Roman History in the sharp, smart and cocksure style that delights the average Indian University examiner.

A further serious defect in the system in vogue is the absolute finality of the examinational test. A student, however excellent his whole educational career may be, is finally declared to be plucked if he happens not to satisfy an examiner who has to examine hundreds, and in cases even thousands, of similar answers within a short time. The illness of the examinee, bereavements in his family, and accidents of every description do not count at all. Similarly the possibility of the examination papers leaking out is totally ignored. Just look at the arbitrariness of the procedure! It is essential that the examination results should in every instance be supplemented and verified by the record of students in the class. If the two substantially agree, well and good; if they do not, priority must be given to the class record.

Modifications such as these, which, it is hoped would not be brushed aside as, 'utopian' even by the most custom-ridden educationist, if introduced may help to bring about a reconciliation between the reformers and conservatives without their having to recede from their main positions.

To revert to our question in the beginning, is examination a test of merit? We can now answer it thus:—Yes, it is surely a test of merit, but it is not the sole test of merit. It has its own uses and advantages, but it has also its evils and disadvantages. Briefly—

- i. It should be for the many, not for the few.
- ii. It should be occasional, not frequent.
- iii. It should be simple, not elaborate.
- iv. It should be spontaneous, not mechanical.
- v. It should be accommodating and pliable, not rigid and punctilious.
- vi. It should supplement, not supplant, the teaching record.

ABDUL MAJID.

THE FUNCTION OF EXAMINATIONS.*

THIS book contains two papers partly based on previous writings of the author, especially the article on "Examinations" in the eleventh edition of the *Encyclopædia Britannica*; the first a lecture

* *Examinations and their Relation to Culture and Efficiency.* By P. I. Hartog, with a speech by the Earl of Cromer. Constable & Co. Pp. 145 with index. 3s. 6d. net.

delivered at the Royal Society in Arts in 1911, on the bearing of examinations on national efficiency: the second a paper on the theory of examinations covering similar ground but giving a more general perspective of the subject. To these are added extracts from the fourth Report of the Royal Commission on the Civil Service, dated 1914 and dealing with the methods of making appointments to and promotions in the Civil Service; from the Report of the Treasury Committee (Mr. Stanley Leathes' Committee) on Civil Service Class I Examination, dated 1917; from Prof. Edgeworths' investigations on the statistics of examinations, with remarks by Mr. Hartog; and notes on the terms 'culture' and 'order of merit.'

The book in effect brings up-to-date the article in the *Encyclopædia* and aims at concentrating attention in these days of educational reconstruction on the urgency of carrying out what the author had therein suggested, a scientific investigation, based on ample data and organised research by experts, educational and statistical, into the methods and results of the examination system, particularly its influence on national efficiency and individual culture. The division of the treatment into two papers of different date and a series of reports and summaries leads to some repetition and makes it difficult to grasp the author's conclusions. We look forward to the more comprehensive treatment of the subject which we are promised. Meanwhile we invite all teachers and educational authorities in India to the careful consideration of the various points of the examination problem here presented. In no country have more numerous and even serious consequences been charged against examinations than in India: many indeed would say that their pernicious effects are more visible here than anywhere. Yet little or nothing has been done to investigate the facts or face the difficulties. Only let us not hastily condemn the application of examination tests to Indian students because we find that in India those tests are badly designed and commonly evaded.

Mr. Hartog admits that examinations cannot be abolished since in these democratic days the public demands that those on whom it relies, whether in professional or public service, shall be certified to be competent by someone whom it trusts and that someone a committee rather than an individual. And since every teacher knows that examinations do effectively control our secondary schools and in part even our universities and both teachers and public are agreed that control as exercised at present is not wholly beneficial, he concludes that examinations must be reduced in power or forced into beneficence. How to effect this, he contends can only be discovered by a really scientific investigation of the methods, and results of examinations. The first step is to distinguish the purposes which examinations are intended to serve, for methods and results must be judged in relation to purpose: the second is to lay down and apply criteria for judging the methods. He distinguishes four functions of examinations; first the original, mediæval purpose of testing technical efficiency, ascertaining whether a man is fit to perform a particular piece of work. Such is the purpose of professional examinations, e.g. those a doctor has to pass, and to some extent of school-leaving, matriculation and entrance examinations which test fitness in general to enter on responsible work and fitness to enter a university or particular career. This it is generally agreed is a legitimate purpose of examinations

and in so far as they serve it and the fitness can be tested, examinations are valuable and necessary tests, to be rendered more real and drastic rather than abolished. Secondly examinations are made to furnish distinctions of merit, as in competitive examinations, and examinations for Honours. Of such a matter examinations are a very doubtful test and apt to be deceptive. Merit is an ambiguous term and even if we substitute 'proficiency,' it is obvious that no examination in itself can so reveal the opportunities that each of the candidates has had or the use he has made of them as to justify us in placing one above the other—unless it be for a very specialised purpose in life. Thirdly examinations are used to test the efficiency of schools and the teachers. Such examinations must obviously be devised to suit the purpose and there is danger of the interests of the pupils being sacrificed to them : in any case correct inference as to any individual pupil could hardly be drawn from them. That is why such examinations are now replaced or supplemented by inspections. Fourthly examinations are used to test general culture. Here again they are tests of doubtful validity and potential harm. Mr. Hartog understands by culture, 'individual refinement and sensitiveness combined with knowledge, in the intellectual and aesthetic spheres,' and argues that, "sensitiveness and responsiveness are apt to suffer injury from the intellectual repression required for the examination syllabus. At every step the delicate feelers of the mind are paralysed by the suggestion : 'I am wasting my time in going further ; that won't be asked'. It may be held, and I should agree, that culture is as individual a thing as conscience ; that culture may be killed, that it cannot be caught, by examinations." True, a subject that is not examined in may not be taught : but teaching that kills its offspring is of little value. The main and truly legitimate function of examination therefore is to test technical efficiency, and where efficiency is in question, it must be so tested, even though the subject is a cultural one like literature : on the other hand the cultural and individual side of technical subjects must not be forgotten and should be left outside the blighting touch of examination. Mr. Hartog would thus exclude from the influence of examinations a large part of the educational field and that the most vital.

The second step is to arrive at criteria of examination tests. A test should in the first place yield a suitable measure of the things to be tested. It is one of the difficulties of human qualities that they cannot be expressed or measured conveniently. There is no such thing as a 'unit knowledge of French' or possibility of exactly defining the proportion between A's and B's knowledge of French. Marks are a most inadequate form of measure. Secondly a test must be trustworthy ; when repeated under identical conditions by the same or different competent observers it must yield approximately the same results. But we have no evidence to prove and indications to disprove that a number of different but competent examiners will attribute approximately the same value to individual questions or individual answers and that the same examiner will always give the same value to the same question or answer. Examiners even admit that they sometimes have to depart from their own system of marking in order to secure justice. There is too an extraordinary variation in the percentage of passes in a given examination from year to year, the causes of which are at present undetermined. Professor Edgeworth found the element of chance in the

marking to be so great that only a portion of from a third to two-thirds of the successful candidates could be regarded as above the danger of coming out unsuccessful, if a different set of equally competent examiners had been appointed. Thirdly "the test should not sensibly affect the characteristic tested, or injuriously affect the material as a whole." But do examinations leave the candidate unaffected. Few students can be wholly normal even on the first day of an examination. Some are stimulated to brilliance, others and probably the majority are affected by fatigue, nervousness, strange environment. We have no data to judge of the extent or intensity of the hygienic and psychological influence of examinations on candidates. It is not even determined whether such influence is a desirable and intentional effect. Do we intend to eliminate those who cannot stand a strain or rise superior to their surroundings, or is their failure merely an un rehearsed effect. Thus it appears that the examination test does not answer to the criteria in the way that, for instance, we expect physical tests to do.

Some examinations are tests of knowledge (or memory), others of capacity; most are more or less tests of both, since capacity implies knowledge. But though an examination test of knowledge can prove memory and even some power of expression, it seldom makes it absolutely certain that understanding accompanies memory. For an examiner must make such allowance that there is always the possibility of a dangerous ignorance in the passed candidate. Moreover the examiner after all remains uncertain of the candidate's power to retain his knowledge permanently. An examination to test capacity probably gives a more precise and definite result, for a candidate can show himself capable of doing some part of what is required. But in certain subjects it is very difficult to set questions that clearly prove any capability, *e.g.* in history. "A written examination can test a knowledge of literature or a knowledge of history; it cannot test the literary or the historical sense". An examiner may be satisfied of a candidate's power of expression but the conditions of written examinations exclude any real proof of original power to collect, sift or weigh facts or to compose (except in the most elementary sense) and criticise. Of pass examinations it is particularly difficult to say precisely what they prove as to the powers of the passed candidate. One examiner would only claim that he thought you could say that a 'pass' candidate could pass the examination at the time that he passed it!

Mr. Hartog's new presentation of the difficulties that arise in framing examinations that are satisfactory tests and harmless in their effects on education in general and the examinee in particular, brings home the need of careful investigation of their phenomena. What has been said for and against examinations will be found summarised in the *Encyclopædia Britannica*. But much that has been said rests on incomplete data. In particular the extent and the causes of the fluctuations that characterise both the marks assigned by examiners and the percentages of successful candidates require investigation; so do the principles that should govern the measuring of knowledge and capacity, standards of passing, systems of marking and the like. Mr. Hartog's remedy is a Royal Commission that should include teachers, examiners, university registrars, actuaries and statisticians. Meanwhile he urges that the potentiality for evil of examinations would be limited if

examining authorities would only stop to define the *purpose* of their examination before they prescribe syllabuses, set question papers or lay down their so-called standards.

MANUAL TRAINING.

A BELIEF in the desirability of manual training in schools seems to be growing in the public mind but there is still much uncertainty as to what is the best kind, that is to say, the kind that will be most useful in after life, and will at the same time develop a wholesome spirit of enquiry. Wood carving has enjoyed a great popularity, it is a pleasant amusement and it is a good adjunct to drawing, but to the average pupil it leads nowhere, not even to a sound knowledge of sharpening tools.

Manual training may begin with the sharpening of knives—table knives, pocket and penknives, and there is a good deal to be said on the subject on account of the great variety in the quality of blades between soft and very hard metal. There is no simpler outfit than that required for the lesson: a coarse emery whetstone for grinding and a fine one for finishing, using water instead of oil to prevent the stones from clogging. A school is never short of knives that need sharpening and it does not take long to arouse a strong desire among boys to master the art. Whetstones are difficult to spoil and the process of tearing off minute particles from the blade upon the coarse stone, and still more minute particles on the finer stone is of unfailing interest. A strong lens, which should be in every school, will render the particles visible as well as the scoring caused by the sharp grains of emery or carborundum on the surface of the blade. The pupil also learns how to use the lens so that the light may fall properly on the object, a by-no-means common accomplishment.

The difference in the quality of blades is best learned in sharpening them. Some are soft enough to bear filing while others are hard enough to scratch glass. Butchers' knives and table knives are generally soft enough to be sharpened with a rod of very hard roughened steel. The edge thus produced is a saw with irregular fine teeth as will be seen under the lens, and all knives present the same appearance varying only in fineness. The soft blade is quickly sharpened but is soon blunted: the hard blade is sharpened with more labour but keeps its edge better. Before steel was discovered cutting instruments were made of iron, brass, flint and shells, and many knives are still made of hoop iron with the edge hardened by hammering. A piece of broken glass has a very fine cutting edge. All these truths are very easily demonstrated.

Some years ago the writer was invited to assist at a children's outdoor party. He bought a pound of nails three inches long, and collected several hammers. Prizes were offered to those who could drive a nail to the head into a block of wood with the fewest blows. The block was set on end so that the nails were driven parallel with the grain. The difference in aptitude among the children was remarkable, some of them handling the hammer surprisingly well and there was nothing to choose between boys and girls. Some of course were all wrong.

The experiment proved so interesting that a match between adults followed that shewed differences just as great as those among the children. Very few of the competitors allowed the wrist to swing, and most of them seized the handle of the hammer by the middle. The walls of Indian dwellings bear sad witness to the incompetent use of the hammer, while attempts to draw nails from a plastered wall generally result in disaster.

Knotting and splicing and the structure of ropes and twine offers several useful lessons that only need a cheap hand-drill and a hard pointed stick by way of implements. The material is cotton or hemp yarn from which twine, cord and rope may be made with three, four and five strands, also parti-coloured cords. The pupil learns how the right and left hand twists alternate in building up a cord and how the hard twisted cord shrinks most when wet because of the thickening of the individual fibres. For splicing and knotting, a knife and the pointed stick are the tools required and a bit of soft cotton rope is the best material to work on.

The preparation and the use of glue in competent hands furnishes some most interesting lessons, beginning with the story of manufacture from the offal of slaughtered animals to the testing of glued joints by breaking. Few people even in the wood-working trades know that glue is stronger than the wood it joins and experiments are easily made shewing that the glue of a well-made joint will, when ruptured tear away the adjoining wood. The cohesive power of solid glue is 4,000 lbs. per square inch. Glue, in damp weather, has less strength than in dry weather, but by cooking it in skimmed milk it becomes waterproof. It is most important to know exactly how to cook and prepare glue in order to obtain the best results. Two bits of half inch board two feet long and two inches broad may be glued together at the ends forming the letter L. They must be tightly pressed together while drying. The members may then be pulled apart by suspended weights.

Glue, as generally cooked by Indian wood workers, has little value as a cement. Soft soldering, one of the most distracting arts as practised by the novice, loses all its mystery under a simple demonstration. A few scraps of tinplate, copper and brass, a bit of rosin, a Primus lamp, a small soldering tool, a pair of cheap tongs and a stick of solder complete the outfit. The soldering tool has to be heated to the melting point of the solder in order to be tinned and the tinplate must also be heated to the same temperature before it can be joined. The samples of tin, brass and copperplate must be thoroughly clean, else they will not take the solder. This is one of the most important truths in the art of soldering.

While dealing with the subject of heat, the hardening and tempering of steel claims attention. An old mill spindle forms a suitable example for experiment. It is generally so hard that a file will barely cut it. If heated to bright redness in the primus flame and plunged in water it is still harder, but if allowed to cool slowly it is much softer than before and may be filed easily. When made hard and polished it may be heated and the colour of the polished part will become pale yellow, deep yellow, red, brown, purple and blue after which the colours disappear. These various colours indicate changes taking place by which the hardness is reduced until the steel loses all its hardness. This colour is the guide by which the smith knows when the moment has

arrived for tempering a steel tool. If it has to cut metal it is plunged in cold water when the colour is orange, if for wood cutting, it is cooled when the colour is purple and if it has to serve as a spring the colour should be blue. An interesting experiment may be made with a piece of steel wire about one-sixteenth of one inch thick which, if heated to a bright red and cooled in mercury becomes so hard as to serve for cutting glass. Drills so hardened may be used for piercing hard steel.

No course of this kind would be complete without reference to the subject of combustion as exemplified in the Primus lamp that has a remarkably fine flame with complete absence of smoke and smell when properly handled. This invention has made its way against much ill usage on the part of people who would not read instructions or learn how to manipulate it. The kerosene is forced by a cushion of air in the container through a very hot retort when it flashes into gas and escapes through a fine jet hole to be burnt. The jet of gas draws in air from around it to support combustion and the mixture of air and gas takes place so rapidly that, although in the right proportion, the mixture is not uniform, some parts being of the explosive proportion. The result is a myriad of minute explosions causing the familiar roaring noise which is however perfectly harmless. The silent Primus owes its silence to a more complete mixture of air and gas previous to combustion. The correct adjustment of the Primus burner represents a branch of manual training well worthy of attention.

The above examples of manual training represent branches of knowledge that are best acquired with the aid of clear explanation accompanied by suitable demonstration. They cover a variety of subjects touching our daily life and they call for manual dexterity as well as intelligent consideration. If presented in the best manner they might help to turn the attention of many boys to the industrial occupations that in India are always short of recruits and that govern the development of India's vast natural wealth which is now so largely exported in the raw state.

J. WALLACE.

THE BOMBAY COMMITTEE ON THE EDUCATION OF THE DEFECTIVES.

IN July, 1916, the Government of India drew the attention of the local governments to several points in connection with the education of defectives. The Director of Public Instruction (Bombay) suggested that a committee be appointed to investigate the whole problem. The Governor-in-Council was, therefore, pleased to appoint a committee, which included the late Mr. Fraser, Mr. F. W. Marrs, Mr. Devadhar of the Servants of India Society, Mr. Shinde of the Depressed Classes Mission, Dr. Behram of Surat, Rao Bahadur Ramanbhai Mahipatram, Mr. Padhye of the Bombay Committee Schools, Rao Saheb K. R. Jayakar of the David Sassoon Industrial and Reformatory Institution, and Rao Bahadur S. K. Rodda. The institutions for the education of the defectives were represented by Miss A. L. Millard, Mr. P. L. Desai, and Dr. Nilkanthrai Dahyabhai.

It may be remarked in the beginning that some of the questions considered by the committee were of an All-India character; and it—would have been better if they had been considered by an All-India

conference of educationists. One such question for example is about the form of Braille most suitable for the Indian vernaculars. This the Bombay Committee left undecided. They, however, strongly recommend the adoption of one system for the province. That would in their opinion facilitate the production of suitable Braille literature. Now would it not be far better to adopt one system for the whole country? Again the Bombay Committee say in their report. "Though an early supply of qualified teachers is needed and there will be difficulties in meeting this supply, after institutions have been established in the different divisions of the province, the annual demand for new teachers will be small and will not justify the establishment of a training college." This is another question which would have been more easily settled by an All-India conference, for it could have considered the feasibility of establishing a central training college for more than one province, where instruction might be imparted in the language most commonly understood, say Hindi. In short an All-India conference ought to have settled the broad lines to be followed in the solution of the question, while the necessary modifications to suit local conditions might have been left to local committees.

The Bombay Committee was thoroughly representative except that no one from Sindh represented that division. It might have added to the usefulness of the committee if one or two specialists from other provinces could have been invited to join it.

We propose to make a few observations and offer some suggestions and shall take the different headings in the report one by one.

Number of defectives:—It is not mentioned in the report what proportion of defective children of schoolgoing age attend school at present. We learn from the report of the Director of Public Instruction that less than 4 per cent of the blind of schoolgoing age and less than 3 per cent of deaf-mutes of the same class are at present provided for. The percentage for Mysore as given in the Mysore Social Review (April 1917) is a little higher, 6 per cent of the defective children in that state are being educated at the Mysore institution for the deaf and the blind.

The committee make a very useful suggestion that future census returns should include not only those who are born deaf-mute, but all who are deaf-mutes at the time the census is taken, we would only add that it should be possible to get separate figures for these two classes.

Causes of blindness and deaf-mutism:—In many cases defectiveness can be prevented or easily cured if proper care is taken in time. In America there are societies for the prevention of blindness. They publish pamphlets and arrange addresses and talks on ophthalmia neonatorum, midwifery, lighting, &c. According to the President of one of these societies in three cases out of every ten in the United States, the loss of sight was preventable. As the committee point out it is estimated that if ophthalmia neonatorum and conjunctivitis were properly treated in time, the number of blind would fall from 40,000, to 26,000.

To the preventive and curative measures suggested by the committee, may be added one more, *viz.*, a more thorough medical inspection of our schools and scholars. Another measure that we would suggest is that Government should arrange for the publication and distribution

of vernacular pamphlets giving the masses and especially the women of the country an idea of how defectiveness can be easily prevented or cured.

Compulsion.—The committee came to the conclusion that compulsion was out of the question until the number of schools was increased and trained teachers in sufficient numbers were available. Local authorities ought, in our opinion, to be empowered to compel any defective child to attend school, provided they can show that there is sufficient provision for its training, especially if they find that the child has taken to any undesirable profession such as begging. We have read of a school for the defectives at Lahore attended by only three pupils. Here surely is a case for compulsion. It may be remarked in passing that the G. I. P. Railway Company actually encourages begging by allowing some blind and deaf boys to travel free and beg in the train.

Schools, Government or private.—The Government of India have in their circular letter tried to shift to private bodies the responsibility of providing education for the defectives without adducing any reason for their view. They say, "While not precluding the institution of Government schools where this is thought advisable, they consider that schools for defectives are a form of effort peculiarly suitable for charitable agencies of a private character and that the support of Government should ordinarily take the form of assistance to private or board schools. "Most of the members of the Bombay Committee however, were of the opinion that it was the duty of Government to see that education is provided for defectives. In this connection may be appropriately quoted the following remarks of the Royal Commission on the blind, deaf, dumb, etc. (1885).

"Fear has been expressed that if the education of these afflicted classes be undertaken by the State the effect might be to diminish that generous benevolence which has already done so much for them in this country. When it is remembered how much remains to be done for them it is obvious that, even were such aid given there will still be room for the action of private benevolence which experience shows to be often stimulated rather than discouraged by state aid, when judiciously given."

Day schools and Boarding schools.—It is stated under this heading that in Germany and America some blind children complete the ordinary school course. The suggestion in this connection that a few teachers, at any rate, reading in the vernacular training colleges should be taught Braille is very valuable. If it is adopted a few municipalities in the presidency will be able to make provision for the education of the blind and hence to introduce partial compulsion as suggested above.

Type of Education suitable.—The committee have entirely ignored the question of physical training, even though the Government of India in their circular letter include this among the questions to be considered by the local governments. We remember to have read in some report that the vitality of defectives was twenty-five per cent lower than that of ordinary persons. If that be so it is all the more necessary that the importance of proper physical training should receive due attention.

Mr. Shinde's suggestion that special institutions should be provided for the education of the defectives of the depressed classes will not

recommend itself to many. In large cities where such institutions will be located in the beginning, the bugbear of untouchability is fast disappearing and there is no just cause to fear that the children of the depressed classes would be under humiliating disadvantages in general institutions.

Occupations for the blind :—Blind persons have shown themselves capable of undertaking various occupations. Besides the occupations mentioned in the report as suitable for the blind, poultry-farming, massage and type-writing may be considered. Cooking has been found practicable in the case of the blind and ought to be taught to girls of that class.

Instructors :—As already suggested above, a central training college may be founded for more than one province. As the committees suggest, advantage may, at present, be taken of the normal classes in the other provinces. Much importance need not be attached to the language difficulty. Marathi, Gujarati, Hindi and Bengali are closely allied and a person knowing well any one of these can after two or three months of assiduous study have a practical knowledge of any other.

Though the committee feel the necessity of providing suitable workshops and sighted supervision for the blind they do not advocate the immediate establishment of any after-care society.

A point in the circular of the Government of India which the committee have nothing to say upon is the proposal to draw public attention to the education of the defectives by including references to them in the school books and by exhibition of work done by them.

Another important aspect of the question has been ignored by the Government as well as by the committee. The question of the education of adult defectives is a very important one and deserves careful consideration at the hands of the public and the Government. Some such institutions as the Home Teaching Societies for the Blind in England, ought to be founded in this country.

We would say in conclusion that progress ought not to be sacrificed for the sake of short-sighted economy. What Mr. Lloyd George and Mr. R. E. Hughes say of the blind is equally true of any other class of defectives. "It would be obviously better to teach a trade to a blind man or blind woman than to offer them charity," says the former and the latter remarks "The educated blind rarely become a public charge. Hence a wise economy insists on their education."

K. S. ABHYANKAR.

SOME SUGGESTIONS.

MY object in writing this article is to describe some principles by which command over language may be strengthened and to illustrate them by reference to the book of selections prescribed for the Matriculation Examination of 1919. I may say that these principles I have found useful.

One of the means of strengthening command over language is that boys should be taken over familiar ground repeatedly. Repetition is of the essence of the Direct Method ; for trusting as it does to intelligent

imitation, it cannot too much emphasise this process. The question then arises what should be the familiar ground in a book of 'Selections.'? To answer this question we must recall that our secondary education was originally designed to play the distinct role of imparting Western ideas to Indian pupils. This then gives us the key for isolating that part of the matter of the book which has to be thoroughly rubbed into the minds of the pupils; and in the case of this book it will be found that knowledge of the moral conceptions and customs of chivalry is what we should aim at imparting. In handling the subject, the following plan did produce fairly good results.

Chivalry; a code of honor of knights of the Middle Ages. The elements of obscurity in this definition are the words 'code', 'honor', 'code of honor'; these then should be tackled.

Honor; a high sense of what is worthy in conduct.

Code of honor; widely accepted or approved ideas and notions as to what is worthy in conduct.

Having dealt with these terms, the teacher then should make the following comments. Every age has its code of honor, and every class has its own code of honor. It will not be found difficult to illustrate these propositions.

This particular code of honor laid great emphasis on courage on the battle-field and courtesy to all, especially to ladies. It also required knights to use their strength and arms in protecting the weak especially women against the strong. This is the explanation of the word 'Chivalry' taken subjectively. Taken objectively, the word denotes customs of knighthood. The following customs may be noted. (1) Youths of good family given training as pages and squires; (2) the custom of wearing belt and spurs and bearing a coat-of-arms on the surcoat or the shield, (3) that of appealing to trial by combat and enjoying warlike exercises such as tilting in the lists; (4) the custom of choosing a Queen of Love and Beauty, whose presence at the tournament was a symbol of the fact that it was the duty of a knight to fight on behalf of women. I may say that an enormous amount of repetition has to be gone through before boys become thoroughly familiar with these definitions and customs. I may also here give an instance of how some enterprising boys make use of their information. An intelligent boy asked, "Sir, what is the code of honor of Brahmins?"; to this I replied in good humour "To defend the cows, I suppose, though unfortunately there is the British Government to do that work."

A second means of strengthening the pupils' command over language is the practice of requiring the expression of familiar matter to be varied in form as much and as constantly as possible. To work out this principle comparatively short and simple sentences are to be set. An illustration will prove the point.

The original sentence.

The bulls had degenerated from the ancient race in size and strength (Page 71).

Answers of boys:

- (1) These bulls were not as tall and strong as their ancestors.
- (2) These bulls were inferior to their ancestors in strength and size.

(3) These bulls had fallen from their ancient state and were poorer in strength and size than their ancestors. Simple as is the sentence only the top boys could tackle it.

A third principle specially useful in teaching words is this. We should throw round a new word as many associations as possible. This can be done in showing its kinship with some other word they might have read or we might suggest the situation or episode of life in which the word might be useful.

Another practice which I have found very useful is that of expanding metaphors into corresponding similes. We should also not forget that suppressed metaphors in such expression as 'rumour is gaining ground', 'the disease is taking heavy toll', 'life is ebbing away', really present great difficulty to Indian boys.

In conclusion I may permit myself the privilege of making a complaint. It is a common and well grounded complaint that books prescribed for matriculation are too many and sometimes beyond the capacity of boys. This drawback throws out of gear any method that a teacher of English might have sketched out; on some occasions it almost reduces him to despair. In my humble opinion this state of things is attributable to one defect in our educational organization. It is this. Those who lay down the syllabus and prescribe books are undoubtedly men of broad outlook, but they have no genuine experience of the Indian school room; on the other hand those who do the actual teaching are men of limited outlook and have no recognised constitutional channel for telling the authorities how the programmes they lay down work out in practice. Let us hope that the Joint Board will meet the situation.

V. K. MIRCHANDANI.

PUBLIC INSTRUCTION IN BOMBAY, 1917-18.*

Population 19,683,249. *Males* 10,252,255. *Females* 9,430,994.

UNDER instruction, males 632,987, females 148,687, total 781,674 or 4 per cent of the total population: males under instruction are 6·2 per cent, females 1·6 per cent of the population. There is one institution for every 1,450 of the population. Total expenditure rose from Rs. 1,55,88,759 to Rs. 1,64,36,388; provincial expenditure rose by Rs. 3,68,095 on account of the removal of restrictions imposed in the early part of the war.

Recommendations were made for filling six permanent vacancies in the Indian Educational Service by Indians who were deemed fit. These appointments have not yet been made.

Collegiate Education.—Arts Colleges 9 with 4,758 pupils, a slight decline in pupils due to plague: lady students in Arts Colleges 128, in the Medical College 56: two aided colleges have over 1,000 students. Professional Colleges 6, with 2,064 students: the size of classes in the Law and Commerce Colleges was this year restricted and fixed. The total expenditure on Arts Colleges slightly decreased, though Governments' contribution increased. Tutorial work is done in varying degrees

* (Report of the Director of Public Instruction in the Bombay Presidency 1917-18. Figures are for British Districts only.)

and according to various systems. Principal Bain's opinion is that "the tutorial system cannot possibly be worked out here except by the elimination of lectures or the multiplication, and amelioration of the staff." The new Joint Board began its work of conducting the Joint School-leaving examination which replaces the University Matriculation and Government School Final Examinations. Its first examination takes place in March, 1919. A proposal to increase the elective element in the University Senate to 70 per cent was approved by the university and submitted to Government. A new scheme of equivalence between the examinations of the Bombay and other Universities was sanctioned. 29 out of 64 passed the examination at the M. A. stage, 1,255 out of 2,345 at the B. A. stage.

Secondary Education.—High Schools for boys rose from 388 with 61,884 pupils to 420 with 65,045 pupils, an increase of 5 per cent in pupils to which all communities contributed except Parsis whose number declined from 5,162 to 5,106. Expenditure rose from Rs. 29,41,117 to Rs. 30,87,857 or 5 per cent: 52 per cent of the expenditure is met from fees, 27 per cent from public funds. One-fourth of the teachers are trained, a little over one-fourth possess a University degree. No progress has been made with the proposals for a Government training college and provident fund for teachers in aided and recognised schools. The terms of the school year were changed, March 1st being now the beginning of the year. "The daily investigation of the manner in which boys do their homework might easily be stricter and more effective." The 'scout' and other similar systems are said to be producing good effects and the extension of the system is said to be under Government's consideration. Hostels are also said to exercise a wholesome influence: 72·8 per cent of the students in Government High Schools are accommodated in Government Hostels. Government emphasise their value and urge parents and guardians not let the financial sacrifice involved in placing a boy in a Hostel to outweigh the advantages of discipline, comradeship and broadmindedness fostered in them.

The Joint Board has withdrawn the option of answering in the vernacular questions in history, geography and classical language at their examination. Mr. Marrs remarks, "The key to efficient teaching is in the hands of the teachers and, although the nature of the medium of instruction may make some difference in the ease with which it is imparted, the teacher is the pivot upon which the soundness of education really turns." The Inspector of Science recommends the preparation of a monograph jointly by the Educational and Public Works Departments on the essential features of a good school laboratory and giving alternative designs for buildings and furniture: he notices a tendency to curtail the time allotted to science and attributes it to the fact that there is no examination in the subject. Others say of the present science syllabus that "in it the theoretical and book work are not sufficiently coordinated with practical work and that in some schools too much stress is laid on the experimental aspect of the course to the prejudice of a clear and precise comprehension of the underlying principles and the general objects that govern the experiments." Of Sloyd it is said that, "the extent to which such training will react effectively on the characters and after-careers of the pupils is still largely a matter of conjecture." The Government scheme for medical inspection is not yet introduced but 21

aided schools in the Central Division have taken up the matter for themselves and arranged for a medical inspection. The New High School, Bombay, has engaged on its permanent staff a qualified medical man.

Primary Education.—Schools for boys rose from 9,645 to 9,951 (owing to renewal of the provincial grant for improving and extending primary education); pupils fell from 570,354 to 565,737, the decrease of 1 per cent being due to plague. Expenditure rose from Rs. 5,371,241 to Rs. 57,54,885 or 7·1 per cent: 58 per cent is met from provincial funds, only 7 per cent from fees, 58 per cent of pupils in local board schools pay reduced fees and 41 per cent pay no fees: in Sind 73·6 pay no fees. The Director agrees with an Inspector that the Government grant to aided primary schools should be raised to at least half their expenditure. The provision of school buildings for new schools is delayed by complex procedure and various expedients are proposed to overcome this. The Vernacular Final Examination appears to be losing its popularity. The number appearing fell from 7,513 to 6,642 and the number passed from 3,267 to 2,904. Boys appear to find lucrative employment without this qualification.

Teachers in primary schools rose from 25,133 to 25,659 of whom 9,930 or 38·7 per cent are trained. The pay of untrained teachers was raised from Rs. 9 to 10 and all trained teachers received the full face value of their certificates. The necessity of further improving teachers' pay to meet enhanced prices was illustrated by a strike of 431 untrained teachers in Surat district lasting for three months. The Director points out that the difficulty is that to raise the pay of untrained teachers who fail to qualify for higher pay by passing through the Training Colleges is to put a premium on indolence and incapacity, while on the other hand the Department must at present use untrained men and ought to pay them a living wage if it employs them.

The Bill permitting Municipalities under certain conditions to make education free and compulsory came into force just after the year closed.

An experiment in part-time education for children of agriculturists was abandoned because unpopular. Of 2,646 children employed half-time in Bombay mills and factories only 532 are under instruction: the number of schools in Bombay for factory children and the number of their pupils declined.

Training of Teachers.—41 institutions, 38 primary, 36 per cent of teachers in all institutions are trained. Vernacular training institutions turn out annually 950 teachers while the number actually required for normal expansion and wastage is 2,250, a shortage of 1,300. To make good this annual deficit it has been decided to establish 26 first year training classes of 50 students each in the various districts of the Presidency. The scheme should be in force as a whole in four years.

CORRESPONDENCE.

TO THE EDITOR.

SIR,—An article with the heading "Correction of Written Work" appeared in the last issue of "Indian Education," and I am tempted to add a little experience of my own during the last two years with standard VI.

It is true that this part of a teacher's work—namely the correction of home-work is the most troublesome. But by adopting the following methods, the work can be made easy and fruitful. First, let the teacher make it a point not to set any home-work which he cannot correct. There is no more fatal mistake that he can commit than that of leaving any written exercise unexamined. The boys grow indifferent when they see that their work is not examined. What an awakening it would be for such a teacher, if he heard one of his pupils saying to another "Oh never mind. Simply write it out. You know the teacher never examines it." Thus it is better to have less of written work but well corrected.

Secondly let the teacher never set about correcting all the mistakes of the boys. Take the example of English Composition notebooks. Let him correct as many mistakes as possible in the notebooks. Then let him take down the common mistakes on a slip of paper. On the next turn of composition he should deal with these on the black-board and then bid the boys find the instances of these errors in their own composition. In course of time he will find the number of such mistakes decreasing. The above method is commendable, for the reason that it forces the attention of the boys to their own mistakes, because otherwise few boys care to turn over the pages of their written work to see the corrections. Also this will engage the co-operation of the boys, they themselves correcting their own mistakes. The teacher should not think that it is one turn of composition wasted. It is real solid work done which proves beneficial. I have always found that such a lesson proves interesting to boys. Again the teacher after examining the written work should remark upon it as 'good' 'very fair' and so on. Such remarks given judiciously and impartially always create a healthy rivalry in boys, each one trying to put forth his best efforts.

A few words may be said here about the use of red ink. Oftentimes it is misused. Some make a lavish use of it, thinking that the more corrections there are in red ink the more industry and labour it shows. But the result is a page painted in black and red showing the joint labour of the pupil and the teacher.

One word more. The writer does not presume to call the methods described above peculiarly his own. They may be in use at present by several other teachers.

T. J. BHOJWANI.

THE NEWS OF THE MONTH.

BENGAL.

THE Committee of the Senate of the Calcutta University appointed to investigate the second leakage of Matriculation questions and the leakage of B.A. and B.Sc. questions has presented its report, which states,—“We regret to have to report that we have not been able to arrive at any definite conclusion as to the mode in which the leakage actually took place or as to the individuals responsible for the act. Indeed, a scrutiny of the entire process reveals the possibility of leakage at so many different stages that it is impossible, on the materials before us, to hold with any approach to certainty that a particular source is more probable than the others. We desire to add that we have been

considerably handicapped in our enquiry by reason of two circumstances entirely beyond our control. In the first place, we had no authority to compel the attendance of witnesses or the production of evidence; in the second place, the long periods which elapsed between the settling of the questions and the printing of the question papers, as also between the leakage of the questions and our enquiry, made discovery extremely difficult if not practically impossible. We may finally state that all the circumstances support the view that the leakage was brought about, not by examination but some organised body of persons anxious to bring discredit on the University."

This report was signed by Sir Asutosh Mukerjee and Messrs. Turner, Howells and T. O. D. Dunn. A note of dissent, signed by Dr. Sarbadhikari, Dr. Das and Mr. Mukerjee, agreed with the conclusions of the reports' last sentence but complained of the inadequacy of the investigation: blamed the Registrar and his office for carelessness, lack of method in keeping records and inefficiency and stated that it was impossible to eliminate either the Registrar and his officers or the paper-setters from the probable sources of the leakage: and demanded a fresh enquiry.

The report was considered by the Senate and Sir Asutosh Mukerjee moved that it be recorded. An amendment of Dr. Sarbadhikari characterising the report as disappointing and proposing a fresh committee of five members of the Senate to re-investigate the matter was lost by 27 votes to one: another that the report be referred back to committee was also lost and the original proposal of Sir Asutosh was carried.

BOMBAY.

At the annual meeting of the Senate last month the Vice-Chancellor Sir Chimanal Setalvad was congratulated on the honour of Knighthood bestowed on him and replying said that he regarded it as a recognition of the manner in which the Senate had managed the affairs of the University, had worked in the best interests of education, had kept up the best traditions of higher education and had above all maintained the independence of the University.

In accordance with a request from the Joint-Secretary, Countess Dufferin Fund, the regulations relating to the Queen-Empress Gold and Silver Medals were altered so that instead of being awarded to the highest among female candidates at the M.A. and M.B., B.S. examinations respectively, henceforth the Gold Medal will be awarded to the highest female candidate in the first-class at the final M.B., B.S. examination and failing such candidate a Silver Medal will be awarded to the highest female candidate in the second class at the same examination.

The Hon'ble Mr. Paranjpye introduced into the Senate a proposition to add to the Pass B.A. course a third subject. The proposition was that the Pass B.A. course should consist of three groups, I,—English: I. One of six groups, (a) Languages, (b) Mathematics, (c) History and Economics, (d) Mental and Moral Philosophy, (e) Physics and Chemistry, (f) Botany and Zoology: II,—one of eight groups, provided the group chosen was not the same as that selected from I, (a) Languages: Languages named include Marathi, Kanarese, Guzerati, Urdu, (b) History and Political Economy (c) Logic and Ethics (d) Logic and Psychology (e) Physics (f) Chemistry (g) Botany (h) Zoology: the pa

on subjects in group III to be identical with those on corresponding subjects in group II. The mover said that the purpose of the proposal was to meet the objection widely raised that the existing pass course (represented by groups I and II) was too narrow and not sufficient to occupy the student for two years. Prof. K. R. Kanitkar moved as an amendment that the third group should not consist of an entirely different subject but of some part of the subject selected for group II in which the candidate might choose to extend his knowledge further. Principal Robertson opposed both proposal and amendment on the ground that the pass student had more than enough to study. The Senate then went into Committee and considered the general question whether there should be two or three subjects for the pass course. The committee deciding in the negative, the Senate then rejected Mr. Paranjpye's proposal.

The Government Resolution on the Report of the Director of Public Instruction for 1917-18 expresses confidence that the new Joint School-leaving Board System "will not only provide a solution of some of the most difficult problems of secondary education that have recently arisen but will also unite together the University and the Educational Department by a bond of co-operation and common service": remarks that it does not regard the tutorial system "as an insidious method of forcing backward students through their schools but as a means for establishing a personal relationship between student and teacher."; hopes that Government will be able in the near future to give effect to a scheme for a substantial increase in the output of trained teachers: and thinks there will be now no difficulty in obtaining a suitable man to fill the appointment of half-time Director of physical training. Government announces its intention of opening primary schools first in every village of over 1,000 inhabitants and subsequently in every village containing over 500; of establishing a training college in every district of the Presidency and Sind, four within the current year: of providing separate secondary schools for girls or attaching special classes to existing boys' high schools; of appointing Mrs. Mead, wife of Mr. P. J. Mead, C.I.E., I.C.S., as honorary organiser of a department of physical training for girls: and of considering a re-organisation of the inspecting staff of girls' schools on a territorial rather than the existing linguistic basis.

The following Press Notes are communicated by Government :—

(A) With the approval of the Government of India the Governor in Council has decided that war allowances on the same scale as has been sanctioned in the case of other low-paid employees of Government in the mofussil should be granted to school teachers in Government employ with effect from the 1st February, 1918, (*i.e.* for salary for January, 1918), the percentage of war allowances being calculated on salary actually paid in the period of retrospective effect. As regards teachers employed in local board and municipal primary schools, who are not strictly Government servants, Government have decided that Municipalities and Local Boards should also be required to pay war allowances to these teachers on the same scale and with effect from the same date as that sanctioned in the case of teachers in Government schools. In view of the financial inability of the Local Boards to bear any share of the extra expenditure on this account, the necessary additional grants to these bodies of the full cost will be made from provincial revenues. With

regard to Municipalities, it is intended to ask them to include the extra expenditure on this account in their total annual expenditure on primary education and to claim additional grants from provincial revenues at the usual rate of one-half.

2. Government have already recently sanctioned permanent increases of pay in the case of *untrained* primary teachers. They have now decided to sanction revised scales of pay in the case of *trained* primary teachers also, with effect from the 1st March, 1919, (*ie.*, for salary for February, 1919), and orders on the subject will be issued very shortly.

3. The war allowances mentioned in paragraph 1 above will be in addition to the new scales of pay alluded to in paragraph 2, and in view of the latter no portion of the war allowances will eventually be consolidated in pay. These allowances will, however, be paid as long as the abnormal conditions resulting from the war and famine continue to prevail.

(B) Regulation 10 of Chapter XIV of the Benares Hindu University lays down that when a private* candidate desirous of appearing at the examinations for admission to the University courses in Faculties other than Theology and Oriental studies is a resident of British India he shall be certified by an Inspector of schools appointed by the local Government of the province or place where he resides or by some other officer empowered by the local Government for this purpose to be a fit person to appear at the said examinations. The Syndicate shall ordinarily require that, in cases where a candidate has at any time previously studied in a school or an institution, a satisfactory certificate from the head of that school or institution shall be forwarded by the certifying officer. It is accordingly hereby notified for the information of the general public that all applications for permission to appear at the admission examination of the said University should be addressed to the Divisional Inspector concerned.

(C) The following rules have been approved by Government for the education of the children (boys and girls) of all men of whatever rank, whether combatants or non-combatants, who have since 4th August, 1914, died while on the active list duty or become permanently incapacitated owing to wounds or disease contracted while on the active list.

The Collector or Secretary, Political Department, on receipt of a list of a such person will ascertain and record the names and ages of all children under 16 years of age of the men mentioned in the list (due respect being had in the case of girls to the customary feelings of the people as regards the recording of such names) and will furnish their guardians with a certificate for each child stating that he or she is entitled to the benefit of these rules, provided that the child has attended a school before attaining the age of 10. Any child producing such a certificate before the head of a recognised educational institution will be entitled under these rules :—

(a) to free primary education *plus* an annual allowance according to requirements but not exceeding Rs. 6 to cover incidental expenses such as slates, books, etc. ;

(b) on passing primary boys' standard IV or girls' standard III to a scholarship of Rs. 3 per mensem in standard I, II, or III of a recognised

*A private candidate is one who has not studied in any school or other educational institution for at least one year immediately previous to his admission to a University examination.

Anglo-vernacular school *plus* (in the case of an aided or recognised school) the cost of fees levied in those standards and of such games and extra fees as may ordinarily be charged. In Government schools a free-studentship will be granted in addition to the scholarship and no games fees will be levied. The scholarship will ordinarily be tenable for three years ;

(c) to a scholarship of Rs. 5 per mensem in an industrial or technical institution recognised by Government on completion of the primary course or Anglo-vernacular standard III. These scholarships will not usually be granted to children who are under 12 or over 17 years of age.

Applications for concessions under (a) should be made to the Deputy Educational Inspector of the district and for scholarships under (b) and (c) to the Divisional Inspector through the head of the school the child is attending.

(d) to scholarships in high schools and Colleges reserved for the benefit of persons possessing the Collector's certificate referred to above without prejudice to the right to compete for all open scholarships. The reserved scholarships in high school will be awarded on the results of the examination for the award of schoolships in high and special schools in each district, will be of the same value as the open scholarships, and awarded on the same conditions to the candidates eligible for reserved scholarships who secure not less than 40 per cent. of the total number of marks for the examination. To those who qualify for the school leaving certificate examination and wish to join a college or higher technical institution, scholarships of Rs. 10—15 will be awarded, provided that the candidates secure not less than 50 per cent. marks in the school leaving certificate examination or such other qualifying examination.

When education of the type required is not available in the town or village in which the pupil resides, or when the conditions of home life or the poverty of the guardian is such that residence in a hostel is considered necessary, an addition will be made to the school or College scholarship to cover hostel charges.

Concessions or scholarships will not be open to children who up to the age of 10 have not attended any school.

DELHI.

A long resolution summarises the results of a Conference in 1917 of Secretaries to Provincial Advisory Committees for Indian Students proceeding to Europe and the Government of India's conclusions thereon. Among other matters it is stated that the Conference held that while there were strong arguments for the insistence by Oxford and Cambridge Colleges on guardianship for Indian students, the objections, mainly sentimental, held by a number of Indians should be taken seriously into account. It appeared that there was an amount of nervousness among students in regard to guardianship and that some parents objected to the small commission of 1 per cent charged to cover expenses. The Conference accordingly commended the following three suggestions to the notice of Dr. Arnold : (a) The imposition of a larger caution fee in the case of Indian students who were not under guardianship might meet the wishes of the College authorities ; (b) the financial difficulty might be removed by the parents making arrangements with a bank for proper payments by means of banking orders ; (c) in certain cases prominent

Indians residing in England, might be willing to undertake the duties of guardianship which would then be of a private and not of an official nature. In his reply the Secretary of State emphasised the distinction between guardianship as it now exists at Oxford and Cambridge, which is under the new University bodies and is not officially controlled, and the official guardianship undertaken by local advisers at some other universities. As regards Oxford and Cambridge the Secretary of State has intimated that he proposes to communicate to the Vice-Chancellors of these Universities the first two suggestions made above. As regards the Universities of Edinburgh, London and Manchester, the Secretary of State has pointed out that official guardianship is undertaken only at the request of a parent or guardian in India. Such an arrangement is entirely voluntary and can be terminated by the parent at any time he may think fit. If any Indian parent wishes to place his son under the guardianship of some prominent Indian residing in the United Kingdom he is, of course, quite free to do so or if he wishes to place his son under charge of some Englishman not holding any official position, suitable persons can be recommended, but the fee charged for such services is prohibitive, except for parents of wealth. The Secretary of State announces that he has abolished the small commission of 1 per cent, which was charged on guardianship since 1913, though experience of the last nine years shows that the deposit of £40 is essential. He has also promised to investigate any definite complaints arising out of the system of local advisors, though it is believed that the complaints received do not generally relate to these. The Local Governments have been informed that if any definite objections are ascertained and reported they will be communicated to the Secretary of State for investigation.

The Conference also requested Mr. Coyajee to complete a special handbook containing information regarding Japan and America. A few chapters of Mr. Coyajee's book have already been published in bulletin and circulated to secretaries.

MADRAS.

The foundation stone of the new Rajkumar College at Grange was laid by Lord Pentland last month. Reviewing the history of the scheme, the Governor praised the generosity and foresight of the Maharaja of Bobbili and the wisdom of the Zemindars and Landholders in recognising the necessity of a liberal education for the right use of their increased responsibilities and privileges.

From the report of the Director on the progress of education, it appears that 195 women are attending Women's Colleges in the Madras Presidency, of whom 108 are in Queen Mary's College for Women. We believe that if a Woman's College were started this year in the Bombay Presidency it would be able to begin with at least as many pupils.

The Principal of the Vellore Arabic School, Shamsul Alema Hazrath Moulvi Haji Abdul Khadir has died at the age of ninety, after holding the post of Principal for over half a century.

UNITED PROVINCES.

Addressing convocation as Chancellor of the Allahabad University, Sir Harcourt Butler spoke of the necessity of creating new local universities teaching and residential and, after urging Muslims to close

up ranks and work together in the development of the Aligarh University, said that he contemplated the creation of new universities at Lucknow and later on at Agra and would appoint a committee to consider their establishment as soon as the report of Dr. Sadler's committee was published. They must develop a teaching university at Allahabad which would involve the separation of the internal and external branches of the university. It had long been his view that all work above the standard of Bachelorship in Arts and Science should be university work at the university centres, directed entirely by the university. The objection that this would lower the standard of collegiate study and collegiate staff would be met by increasing the number of local teaching universities. The Province lent itself extraordinarily well geographically for a rearrangement of this kind. In America distinction was already drawn between the disciplinary education of the college and free-ranging education of the university and was characteristic of the history of higher education for the past quarter of a century. The college aimed at training students for citizenship, the university for scholarship: the success of the higher work depended on the intellectual and moral quality of the professors, their freedom from pecuniary anxiety, the widest publicity for their work and that of their assistants and students and the steady improvement of libraries and laboratories.

Pure research work would be concentrated in the universities and for such work chairs must be multiplied by endowment. "I make you one advance offer this afternoon," he said. "We are singularly deficient in the teaching of geography. Geography is now one of the great sciences. 'The forms of the land,' said Sir Archibald Geikie, 'and their origin, the climates of the globe, the distribution of plants and animals and the causes that have regulated it, the influence of the variations of climate, soil and topography upon the history of man, the reaction of man upon nature—these and a thousand other connected problems form the subject of the highest kind of geography. Such a theme invested with so much human interest possesses peculiar value in education.' To which we may add its essential and transcendent value for the industrial advance of India, and her political incorporation in the British Empire. I am prepared to finance a chair of geography if you will secure from Europe a really trained geographer to inaugurate this new and fruitful course of study. Germany, France and Italy recognise the importance of this subject. In Italy alone there are twelve chairs of geography."

The first convocation of the Benares University was held in the quadrangle of the Central Hindu College on January 17th. Two M.Sc.'s, five B.Sc.'s thirty B.A.'s received degrees. The academic gowns were of mauve with yellow border and worn with green turbans! Sir Sivaswamy Aiyer, Vice-Chancellor, in the course of his address said that, speaking for himself, it was a wise decision on the part of the Government of India that the Benares Hindu University was not given power to affiliate any institutions outside Benares. There had been a growing feeling in the country that the existing system of university education had not been sufficiently co-related to the practical needs of fast changing material and economic conditions and had not been sufficiently alive to the necessity for the preservation of Hindu culture and ancient learning in the forcible impact of Western knowledge and culture, that religious instruction had been neglected and that little had been done to

enrich vernacular literature. The Benares Hindu University had been started to remedy these defects in education. It was not intended to be a reproduction of the type of existing Indian Universities, but to combine the four different functions of aiming at the discovery and advance of truth, the development of character, the harmonious cultivation of the intellect, heart and aesthetic faculty and an efficient training for vocations. The University aimed to preserve and promote Indian culture by giving importance to Sanskrit learning.

He went on to point out the directions in which the university might profitably develop, mentioning applied science such as engineering, agriculture and commerce, ayurvedic medicine, the fine arts such as architecture and town-planning, music, sculpture, post graduate research and religion. It was announced that a Marwari gentleman, Mr. Baldeodas Doodhwalla, had offered a lakh for ayurvedic education by the university and another had contributed a lakh and a half towards students' hostels.

REVIEWS OF BOOKS.

INSTRUCTION IN INDIAN SECONDARY SCHOOLS.

Edited by A. H. Mackenzie, M.A., B.Sc., A.R.C.Sc.

OXFORD UNIVERSITY PRESS.

THIS book contains a series of essays by recognised authorities on various aspects of school work. All are valuable as written by those who know the conditions of work in India, although they contain much that is to be found in other books of the kind, and sometimes arouse the thought that the time has come for a respite in the production of books of this sort.

The essay on moral training is full of wisdom, even if it may be thought that some aspects of the subject hardly receive sufficient notice. That on class teaching by Mr. J. N. Fraser is not only of special interest to readers on this side of India as being perhaps his last word on the subject dear to his heart, but is also the best in the book. He who has thoroughly assimilated its contents will have little to learn in the matter of conducting a class. Those on geography and on drawing strike us as specially opportune, as they show how imperfect is the work in our schools. The teaching in geography is ridiculously inadequate and the most prominent feature in our drawing work is its utter lifelessness. We recommend a perusal of the chapter on the teaching of history to those who, misled by the many fine things which have been said about the value of the subject, think that our pupils are acquiring some of these fine things. We agree with the writer that our boys are not really qualified for a study of English history, and that their studies should be confined to Indian history until they pass into the Colleges. We have specially noted the essays mentioned, because they emphasise points demanding immediate attention, but the whole book should be read.

FROM A KINDERGARTEN WINDOW.

By Corrie Gordon.

SRINIVAS VARADACHARI AND CO. MADRAS, Rs. 1-8-0.

THIS little book is a collection of short essays on various subjects connected with the education of little children. The authoress is

an ardent believer in the value of the Kindergarten, and everywhere displays a ready alertness to possibilities of improvements in that system. Her remarks on children and their ways show real insight and loving sympathy and are deserving of very serious consideration. The book is primarily intended for teachers, but we would recommend it also to those who wish to understand what the Kindergarten may mean to those who work in it and love their occupation. It is sometimes said that the system fails in India; this book shows how much depends upon the personality of the teacher, and will help to create the right spirit in those responsible.

THE DIRECT METHOD READERS, BOOKS I TO IV.

By Llewelyn Tipping, M.A., I.E.S.

MACMILLAN AND CO. AS 5, 8, 10 AND 14 RESPECTIVELY.

IT is not easy to speak in too high terms in praise of these manuals; they are what such books should be, well printed, well illustrated, the subject matter has been most carefully and wisely selected and is calculated to arouse the interest of the pupils. The author recognises that humour is not out of place in a reader and arouses the hope that we may some day see more serious attempts in this direction. There is nothing so refreshing, even to a school-boy, as a good laugh, and we ought to give him more opportunities for such refreshment than we do.

There is always present the danger that manuals of this kind will be turned into reading books of the usual kind and the direct method degenerate into something which is not what it professes to be, but even if they do come to be used in this way, these manuals will be found superior to most readers, and the earlier grades especially are of a kind to foster what is at present a lost art in our schools, the art of reading.

If we have any unfavourable criticism to make, it is that the grades represent what can be done by an expert rather than what we can expect from the rank and file of teachers. A boy who could master the fourth book in his fourth year of study would be above the average. Even this little fault-finding must be qualified by the remark that the books contain none of those lessons which, while of simple appearance, really require a kind of knowledge which it is very difficult to impart in a vivid manner, because of the unfamiliarity of the subject matter.

THE STUDENT'S PRACTICAL DICTIONARY, ANGLO-HINDI.

SEVENTH EDITION, REVISED AND ENLARGED.

RAM NARAIN LAL. ALLAHABAD. RS. 2 AS. 8. Pp. 1056+31.

“THIS Dictionary gives meanings of English words in Hindustani expressed in *Devā Nagri* character.” The English words are first defined: we have noticed only a few cases in which we should dispute the definition, e. g. *choleric* (*filled with cholera*), *precession* (obsolete in the sense of *going before*), *renegade* (*bond*). There is a considerable number of words which need have no place in a student's dictionary, e. g. *renitence*, *torpent*, *perissology*. The English meanings are given together, punctuated by semicolons; the Hindustani equivalents follow punctuated by commas only; consequently where the number of Hindustani words or phrases does not correspond to the number of the

English it is not easy to discover which Hindustani word or phrase corresponds to which English. So far as we have tested the work it is reliable in its equivalents: but sometimes a word is *described*, not translated e.g. cobra. The type and binding are good.

W. & A. K. JOHNSTON'S ATLAS FOR INDIAN SCHOOLS.

MACMILLAN & CO., BOMBAY.

PAPER bound, 10" by 12". Thirty-six maps, of which eight are physical, about half are in bathy-orographical colouring and ten in political colouring. Special features are the large proportion of maps of Asia and its parts—twenty-one, including fifteen maps of India: the attention paid to physical features: a map of trade routes from the East, ancient and modern: up-to-dateness, the maps showing the political divisions at the outbreak of the Great War. The number of scales employed is limited. The print is very legible and not obscured by the colouring. A very excellent atlas.

A FRENCH GRAMMAR. *By Massard and Durno.*

FRENCH EXERCISES. *By F. V. Massard.*

RIVINGTONS. 4s. AND 2s. 6d.

MESSRS. Massard and Durno's French Grammar is in every way a complete course of grammar which may be placed in the hands of a pupil who has been studying French for two or three years and should satisfy all his requirements till the end of his school course. The matter is well arranged and the examples selected are typical. The authors have introduced one chapter on Phonetics and two more on Prefixes and Suffixes and Versification. It is quite indispensable that the young learner should know how to pronounce correctly and especially the vowels. With the guidance of a teacher this chapter on Phonetics is calculated to supply the need. An elementary idea of French versification can also be obtained from the chapter which is devoted to it.

The second book is meant for giving practice to the pupil in mastering the rules of grammar. The exercises are divided into two parts—one elementary and the other advanced; they can be used with any grammar as a companion volume, though the book is intended primarily to serve as a companion to the above grammar.

Both the books deserve to be introduced as text books in this Presidency. The type is clear and bold and the volumes not bulky.

AN ENGLISH GRAMMAR.

By T. S. Sterling, M.A.

LONGMANS, GREEN AND CO. Re. 1-4-0.

THIS is a class-book containing much the same matter as is found in other books of the kind, but arranged in accordance with the generally approved methods of teaching, that is to say, the rules and definitions come as the result of a comparison of examples. Copious exercises are given, special idioms receive full attention and there is a large section dealing with the more common mistakes of Indian students. In theory the book mainly follows the lines of traditional orthodoxy and does not

do much to clear up the difficulties which a closer study of grammar reveals. We know of no better class-book on its own lines, but it might still be questioned whether the study of grammar should not begin with an understanding of the logical elements of the sentence. Grammar taught on the usual orthodox lines is hardly what it ought to be, the science of speech, and we should welcome a deeper recognition of the value of grammar when taught in a way to bring out the underlying logical foundations.

FIGHTING FOR SEA-POWER IN THE DAYS OF SAIL.

By H. W. Household.

THE BRITISH NAVY. THE NAVY VIGILANT.

By L. Cope Cornford.

MACMILLAN AND CO. EACH 2s. Pp. 226 AND 202. BOTH ILLUSTRATED.

THE second of these books contains an account of the organisation, ships, forces and function of the British Navy, what is meant by sea-power and how it has been exercised by the Navy in the past and in the present war, its work in safeguarding navigation, exploration and other civil duties and the types of officer that it breeds. Simply told in untechnical terms, it is an admirable and most interesting introduction to a subject the study of which should be compulsory in every British school.

The first is intended as a companion to a similar book by its author, but will make an excellent supplement to Mr. Cornford's book. It tells in simple language and the clearest manner yet with graphic detail twelve stories of old sea-fights in which are revealed life-at-sea in the days of sailing ships and the heroism and responsibilities of our great sea-captains.

OUR CONTEMPORARIES.

FROM the *Times Educational Supplement*, an address by Mr. Fisher on "The Art of Keeping Alive."

Mr. Fisher said that the quality of instruction depended on the living force within. The hardest problem of educational statesmanship was not to find and test the teacher, but to keep him alive and interested in the continuous exercise of his craft. The problem was in the first place a physical one. The physical foundations of their art were generally understood. It was stupid to overwork, ruinous to coddle. Fret, fuss and bustle were the arch foes of that animated and steady equanimity which was the most effectual pillar of physical health, although it was impossible to define physical health more narrowly than by calling it that condition of the body most conducive to the discharge of the functions that a person had undertaken to perform. The art of keeping alive, in other words, was one thing, and the art of longevity another. While always creditable to be alive, it was not necessarily creditable to be old. The highest intellectual and artistic feats could, indeed, often only be accomplished under severe physical penalties. Some must be willing to face these. It had been said that every savant was half a corpse. Some such melancholy reflection might easily steal into the mind of every student

who had expended the greater part of a laborious life in researches, so arduous as to exclude him from the great tidal rush of the world's affairs, a voice within him whispering: Have you lived? Was his a life in any true sense of the term? Was it not rather a living death in which were sacrificed eyesight and digestion, precious hours of irretrievable sunshine, not to speak of many of the simple blessings proceeding from communion with nature and fellowmen. After a man had proceeded to a certain point in his enquiry into a subject, the law of diminishing returns began to operate, the soil became less fruitful, and the same amount of labour brought with it an ever dwindling harvest of satisfaction. One of the problems for the learner was to keep his power of curiosity fresh because it was this inquisitive and questioning spirit which was one of the vital sparks in a scholar's life.

A certain great scholar used to make a distinction between what he called "animate knowledge" and what he called "inanimate knowledge," and this was a very real distinction upon which it might be fruitful to meditate for a few moments. Knowledge was animate when it served the purpose of life, not necessarily a practical purpose in the narrow sense of that term, but giving the student a more intelligent view of the world in which he lived. It was a matter of ordinary experience that knowledge which was animate at one time could become dead knowledge or inanimate after it had served its special purpose. The note of a good teacher was the power of selecting those parts of his own knowledge which were living to himself and of so communicating them to his scholars that to them also they should become living. The great obstacle was always the textbook, which, however good it might be, must often contain slabs of information which to any given mind at any given time could not be made significant. Any great teacher played tricks with his textbook, treating it with a sovereign and disdainful ease. It was himself that he gave to his scholars, not another man's opinions or another man's facts. He made his own plan of campaign, conducted his own sieges, executed his own *coups de main*. Such a teacher would not be content with a single method or be slave to any ritual. He well knew that every face upon the benches indicated a separate problem, individual, complex, never identical with itself, because human and growing and belonging to the realm of spiritual fact.

The best way to continue to teach well through life was to have mastered one part of the field of knowledge and to combine the practice of teaching with the habit of acquiring knowledge. To them who had not the time nor gift for systematic attack on a subject, he recommended the glorious habit of wide, vivacious, desultory reading as one of the best preservatives of intellectual youth. Novels, dramas, travels, romances, biographies, poems and histories, and indeed every form of literature which could enlarge experience or quicken imagination should be received into the generous mind. Quantity was almost as valuable as quality. Indeed it was a mistake to be overfastidious in youth, for nicety might lead to narrowness, and narrowness to tedium. He pleaded for the general importance of books as aids in the art of keeping alive. A school without a library was like a man without eyes.

Of all the forms in which the art of keeping alive was practised by the teaching profession, the most general was the practice of kindly sympathy. The art of cultivating friendships among the juniors was greatly

to be envied, whenever it could be practised without condescension or constraint : and there was no feature more pleasant in a teacher's life than the fact that these opportunities had not to be painfully fabricated but came unsought and as an incident not only of professional life but of diurnal duty. The cultivation of friendships was not only an enduring source of happiness perpetually renewed, but in itself a precious elixir of youth. The real test of old age was spiritual estrangement from the life of youth.

The right use of the holiday was one of the sovereign secrets in the practice of the noble art of keeping alive. There could be no one right use for leisure, and that which is right for one would be wrong for another, and that which is right for one at one time might be wrong for him at another time. There were, however, some general observations about school holidays which it was legitimate to make. First, contrary to a widely-spread belief, he did not think that they were too long. Those who urged that the working school year should be as long as the working industrial year did not know the alphabet of the question. The existing provision of school holidays was, in his view, necessary to the continued efficiency of the teacher and should not be reduced. Secondly, leisure was only valuable if it improved the quality of work. A holiday was not an end in itself, but a means to a general improvement of the working life, and the test of whether a holiday had or had not been well used was the supplement of zest and vigour which it contributed to our proper labours. Every holiday should bring with it a real development of experience.

An article in the *Chicago School Review* (November) reveals that in America the duties of a high school Principal are indefinite to a degree verging on the ridiculous. He is of course an administrator not a teacher and his function is to serve the interests of the community. But the service of a democracy becomes slavery when the head of an institution is at the beck and call of the whims of any member of the community :—

"A great nuisance in one school with which I was connected was the duty of answering the telephone. I tried in several ways to discourage the practice of parents calling and asking me to go and tell Mary to bring a loaf of bread for supper. I sometimes had to look up Mary's exact location at that particular hour, climb several flights of steps, interrupt a recitation, and bring Mary to the telephone. I was not as prompt and zealous as some person or persons thought I should be, so some one complained to the board. The board then kindly, but firmly, suggested that, since it was the community's high school, all such messages should be religiously attended to, which was done. Many days it cost that community from a dollar to a dollar and a half to deliver this sort of messages, as measured by the actual time I spent at it. Measured in terms of how much less I accomplished, due to interruptions, it was much more ; and measured in terms of loss due to distractions of teachers and pupils, it certainly was great. I might add that after one semester I relieved myself, but not the school, by getting an office girl."

In a pamphlet, entitled, "Research Rays in Parsee Education" reprinted from the *Sanj Vartaman*, Mr. Maneckji B. Pithawala asserts that the Parsees are failing to maintain their position as leaders in

matters educational and enumerates various causes for this. They are neglecting, he says, the history of their race and the sacred books of their religion and with them the chief source of educational inspiration. Few schools educate their children with a view to a definite aim in life or the building up of sound moral character. The rich prefer the Christian convent schools for the sake of their teaching of English and the Parsee primary schools, lacking support, are staffed with ill-paid, ill-qualified teachers: home training is neglected, the schools are conducted for profit of the proprietors, classes are unmanageably large, methods of teaching are mechanical and uninteresting. Manual training is neglected. There is a dearth of good Parsee literature. To remove these and other errors and to supply what is wanting he urges that the study of Avesta should be made compulsory, that lessons shall be framed with the definite purpose of producing God-fearing and efficient citizens; that the money devoted to hiring private tutors be diverted to the maintenance of well-found schools, particularly to establish a Parsee Boys High School Company with limited liability of about ten lacs, or to the provision of a 'decent' home library and other educational facilities at home. For manual training he demands the inclusion of Sloyd classes in the curriculum or as continuation classes. For the provision of sound cheap literature he seems to look to private philanthropy or to the constitution of some Parsee Society on the lines of the S. P. C. K. He concludes with some excellent advice of Mr. Fisher on the necessity of the teacher cultivating in himself a natural simplicity and infectious enjoyment of his duties and in his pupils a corresponding zest and the divine gift of curiosity.

GOVERNMENT NOTIFICATIONS.

PERMANENT NOTIFICATION.

No. 3197 OF 1902-03.

POONA: OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
6th March, 1903.

INDIAN EDUCATION.

THE Educational Department is not responsible for anything which may appear in this publication, unless over official signature.

F. G. SELBY,
Director of Public Instruction.

APPOINTMENTS, ETC., MADE BY GOVERNMENT.

4th December, 1918.—His Excellency the Governor in Council is pleased to appoint Shaikh Bakarali Amerali to be Special Mahomedan Deputy Educational Inspector for Urdu Schools in the Central Division on Rs. 250 per mensem, and to continue to do duty as temporary Personal Assistant to the Educational Inspector, Central Division, on Rs. 250 per mensem, pending further orders.

10th December, 1918.—His Excellency the Governor in Council is pleased to appoint Dr. Pherozechah Nassarwanji Daruwala, LL.D. (Lond.) Barrister-at-Law, to act as Professor of Law, Government Law School, Bombay, during the absence on leave of Mr. Hormasji Sorabji Captain, Barrister-at-Law, or pending further orders.

14th December, 1918.—His Excellency the Governor in Council is pleased to make the following appointments :—

Mr. Krishnalal Surajram Vakil to be Inspector of Training Schools, on Rs. 350-50-600 per mensem as a temporary measure, for a period of two years, pending further orders.

Mr. Krishnaji Shankar Dixit to act as Head Assistant to the Director of Public Instruction, *vice* Mr. Krishnalal Surajram Vakil pending further orders.

21st December, 1918.—Shaikh Bakarali Amerali, Special Mahomedan Deputy Educational Inspector for Urdu Schools, Central Division, and temporary Personal Assistant to the Educational Inspector, Central Division, was in charge of the office of the Educational Inspector, Central Division, in addition to his own duties, from the 14th to the 25th July, 1918, both days inclusive.

23rd December, 1918.—His Excellency the Governor in Council is pleased to appoint Mr. H. V. Hampton, on return from Military duty, to be Professor of Logic and English, Gujarat College, Ahmedabad.

APPOINTMENTS MADE BY THE DIRECTOR OF PUBLIC INSTRUCTION.

12th December, 1918.—Mr. Nilkanth Venkatesh Gokhale, B.A., Deputy Educational Inspector, Bijapur, on Rs. 300 per mensem, is granted privilege leave on full pay for six weeks from such date as he may avail himself of it.

Mr. Gopal Bhimrao Jamkhandi, B.A., Assistant Deputy Educational Inspector, Bijapur, on Rs. 150 per mensem, is appointed Acting Deputy Educational Inspector, Bijapur, on Rs. 200 per mensem, during Mr. N. V. Gokhale's absence on leave, or pending further orders.

13th December, 1918.—Mr. M. S. Nimbkar, B.A., Assistant on Rs. 55 and Acting on Rs. 60, in the Dhulia High School is transferred to the Training School, Dhulia, *vice* Mr. S. L. Karandikar deceased.

14th December, 1918.—The following appointments, etc., are made with effect from 1st December, 1918 :—

Mr. S. G. Mehta, B.A., Probationary Assistant on Rs. 50, and acting on Rs. 55 in the Surat Middle School, is promoted to Rs. 55.

Mr. D. M. Nagarkar, B.A., Probationary Assistant on Rs. 50, and *sub-protem* on Rs. 55, in the Bijapur High School, is promoted to Rs. 55.

Mr. R. D. Kotnis, B.A., B.Sc., Probationary Assistant on Rs. 50 and Acting on Rs. 60, in the Elphinstone High School (M.S.) Bombay, is promoted to Rs. 60.

The following appointments, etc., are made with effect from 1st January, 1919 :—

Mr. R. G. Natu, Probationary Itinerant Teacher on Rs. 70, Sirsi Division, (Kanara), to be Probationary Assistant Deputy Educational Inspector, Kanara, on Rs. 75, *vice* Mr. S. N. Koppikar, (Assistant Deputy Educational Inspector, Kanara, on Rs. 100) retiring in the afternoon of 31st December, 1918.

Mr. R. D. Gaokar, Itinerant Teacher, on Rs. 60, Malyal Division, (Kanara), to be Itinerant Teacher on Rs. 70, Kanara, *vice* Mr. Natu.

20th December, 1918.—The following appointments, etc., are made with effect from 1st January, 1919.

The lien of Mr. V. N. Magdul, B.A., (Assistant on Rs. 100, in the Training College for Women, Dharwar, and temporary Head Master on Rs. 100-10-150, of the Training Class at Bijapur) is transferred to the Dharwar High School.

Mr. R. B. Kerur, B.A., Assistant on Rs. 70 and Acting on Rs. 75, in the Training College for Men, Dharwar, and appointed to do duty in the Training College for Women, Dharwar, *vice* Mr. Magdul, to be Assistant on Rs. 70, and acting on Rs. 75, in the Training College for Women, Dharwar.

Mr. S. V. Katti, Assistant on Rs. 80, in the Dharwar High School, is transferred to the Training College for Men, Dharwar, *vice* Mr. Kerur.

24th December, 1918.—The following appointments, etc., are made, in the Urdu Training Class, attached to the Training College for Men, Ahmedabad, from 13th January, 1919 :—

Mr. N. M. K. Maniar, B.A., to be Head Master on Rs. 150-10-200, with effect from 1st January, 1919, but to continue in his present appointment, *viz.*, *sub-protem* Deputy Educational Inspector for Urdu Schools in the Northern Division, on Rs. 200 per mensem.

Mr. A. A. Hakimji, B.A., Assistant on Rs. 75, in the Ahmedabad Middle School, to be 1st Assistant on Rs. 100-10-150 and *sub-protem* Head Master, on Rs. 150-10-200, *vice* Mr. Maniar.

Mr. N. A. Kadri, B.A., Probationary Assistant, on Rs. 55, in the Ahmedabad Middle School, (on deputation to the Secondary Training College, Bombay), to be (after his return from the Secondary Training College) Probationary 2nd Assistant on Rs. 75-5-100.

24th December, 1918.—The following appointments, etc., are made, with effect from 1st January, 1919, *vice* Mr. B. M. Kale, B.A., Deputy Educational Inspector, Bombay, deceased :—

Mr. Bhimbjai Naranji Desai, B.A., Second Deputy Educational Inspector, Bombay, on Rs. 250 per mensem, to be Deputy Educational Inspector, Bombay, on the same pay, *vice* Mr. Kale.

Mr. Balkrishna Shridhar Kolatkar, L.Ag., Deputy Educational Inspector, Kolaba, on Rs. 200 per mensem to be 2nd Deputy Educational Inspector, Bombay, on the same pay, *vice* Mr. Desai.

Mr. Dinkar Vaman Gangal, B.A., Assistant Deputy Educational Inspector, Kolaba, on Rs. 150 per mensem, to be substantive *pro-tem* Deputy Educational Inspector, Kolaba, on Rs. 200 per mensem, as a temporary measure till further orders, *vice* Mr. Kolatkar.

4th January, 1919.—The following appointments, etc., are made :—

Mr. N. M. Mudbhakar, B.A., *sub-protem* Assistant on Rs. 50, in the Karwar High School, (*vice* Mr. N. B. Nadgir, B.A., Probationary Assistant, doing duty in the Belgaum High School), is, with effect from 1st January, 1919, made Probationary Assistant on Rs. 50, in the same High School where a grade of Rs. 50 is vacant.

The following appointments, etc., are made, *vice* Mr. A. N. Khansaheb, B.A., Probationary Assistant Deputy Educational Inspector, Surat, on Rs. 75 lent as Head Master of the Talukdari School, Godhra :—

Mr. H. H. Nanavati, B.A., Assistant Deputy Educational Inspector, Broach, on 100, is appointed to do duty at Surat, *vice* Mr. A. N. Khansaheb.

The following appointments, etc., are made, with effect from 1st January, 1919 :—

Mr. C. L. Brahmachari, B.A., Assistant Deputy Educational Inspector, Bombay, on Rs. 75, and *sub-protem* on Rs. 100, to be Assistant Deputy Educational Inspector, Bombay, on Rs. 80 and *sub-protem* on Rs. 100.

Mr. R. K. Desai, Local Board Teacher, Katargaon, on Rs. 60 (Surat District), and Acting Assistant Deputy Educational Inspector, Surat, on Rs. 75, *vice* Mr. V. B. Bohora, is confirmed in his present appointment, *vice* Mr. Bohora.

7th January, 1919 :—The following appointments, etc., are made :—

Mr. P. H. Joshi, B.A., Probationary Assistant Deputy Educational Inspector, Thana, on Rs. 75 and Acting on Rs. 80, to be Assistant on Rs. 60 in the G. H. High School, Jalgaon, (in the vacant grade of Rs. 60).

OFFICE OF THE

DIRECTOR OF PUBLIC INSTRUCTION,
POONA, 16th January, 1919.

J. G. COVERNTON,
Director of Public Instruction.

EDITORIAL NOTICE.

Correspondence and literary contributions are invited from all who are interested in the educational problems of India. Accepted contributions will be paid for. The moderate and well-worded expression of individual opinion will be welcome, and consideration will be given to all criticism which is sound and really genuine—containing nothing offensive, and not being the expression of personal grievance. All contributions must be written on one side of the paper only. Stamps should accompany the MS. if the writer wishes it returned, in case of non-acceptance. The Editor can in no case hold himself responsible for accidental loss. All literary communications should be addressed to

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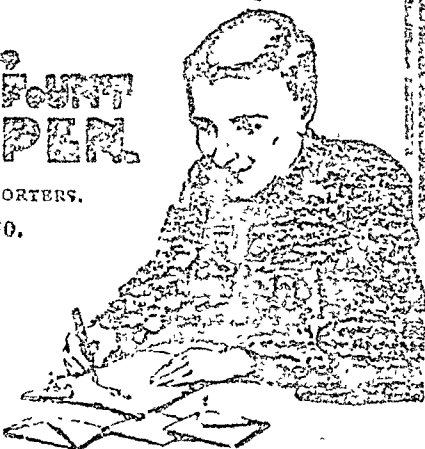
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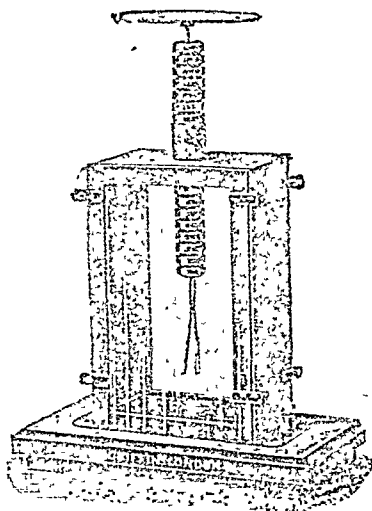
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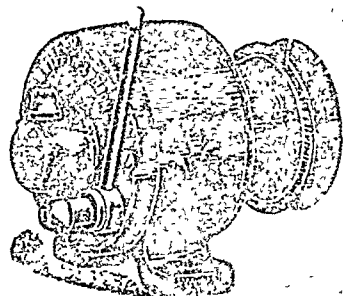
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INDIAN EDUCATION.

Say not that the struggle naught availeth.

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EDITORIAL NOTES.

THE opinions of Sir John Woodruffe on educational policy in this country, which we summarize very briefly in "News of the Month", probably reflect a point of view common among a considerable number even of Englishmen familiar with the condition of this country—the feeling of regret that we have not a clean slate on which to plot our educational system and the conviction that, if we had, our present experience would enable us to design schemes far more suitable, effective and acceptable than have yet been evolved. But the effects of nearly a century of educational development cannot be so easily wiped out and educational policy must be governed by existing conditions. Even to Sir John the problem is not to substitute Indian for western culture but to harmonise them and to supplement the deficiencies of Indian civilisation. Merely to give Indian culture the primary place in our prescribed educational courses will not suffice. For the Indian that has tasted of western knowledge is no longer satisfied with the native springs of Indian learning and craves for stronger stimulants. The demand for western science cannot be ignored and the fundamental problem is so to temper the mixture that it be not too intoxicating nor too transmuting. This tempering demands in the teacher a knowledge of both east and west which is not easily found. Till recently the assumption has been that the first requisite is an exact and full knowledge of the qualities of the western ingredients. If there has been insufficient regard for the reaction they produce on the Indian base, we must be on our guard against corresponding disregard of the value of the western acids, and against unscientific experimenting. Modern industrial and political development are almost wholly western and if India is to progress economically and politically on the lines of western development the conditions of modern development must be carefully studied and precisely known. This cannot be done without travelling far and wide outside the limits of Indian culture

and without a sound knowledge of English. Unless every facility be granted for this, there will come from Indians a more widespread and stronger protest than ever the English have uttered at the nationalisation of Indian Education.

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The difficulty of providing open spaces for the games and physical exercises of school-children is great in every large city and probably greater in the city of Bombay than most. To this difficulty are added two others, that Indian school-children do not by nature and custom take to these games that are of most educational value and that systems of physical training require modification to suit the conditions of education in the tropical east. These three difficulties become serious impediments in the case of girls. For a long time the Girls' Athletic Association has been endeavouring to obtain a plot of ground which could be used jointly by Girls' Schools and would serve as a centre for training teachers, but so far to no purpose. Government have appointed a lady to organise physical instruction for girls. They should not neglect the even more important need of a ground where the organiser can have scope for her ability.

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In his contribution to our February number, Mr. Frank Roscoe mentioned that in England it had been suggested that the most appropriate form of war memorial would be a school building and that funds should be raised for the erection of new schools when required, these schools to be considered as memorials of the war. The suggestion is admirably opportune for this Presidency where we are promised a large development of primary education for which the first requisite is buildings. If any town or district wishes to commemorate its contribution to the war or the part which any of its residents has played, what more suitable memorial than a primary school building within whose walls younger generations may learn to look up to and follow in the steps of the heroes of this stirring age. The Bishop of Bombay has proposed a Greek Cruciform Church to serve as memorial for the growing religious unity brought about in Christendom by the war. We think that a four-square, commodious school building for a joint High School for all Christian boys in Bombay would be a far more sensible and suitable memorial. Bombay has played a great part in the war activity of the Empire. If Bombay

wishes to commemorate its work it could not do so in a better way than in providing the Municipality with buildings wherein future citizens may develop physical and intellectual activity in hygienic conditions.

It has become a common custom to preserve the memory of worthy men by statues, painted portraits, busts, and by scholarships, libraries or hostels. While many men, worthy and unworthy, have sought to commemorate themselves by public fountains, benches and dharamsalas and what not. Would not subscriptions for such purposes and such expenditure for self-advertisement be far more suitably and profitably spent on erecting school-buildings. No more prominent and beneficial monument, no better advertisement could well be devised. The memory of every worthy might be enshrined in the school-house of his native village. And if every school-house becomes, as the Americans and President Wilson would have them, the centre of the local community's life, no one could desire a more honourable and more stimulating memorial.

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Mr. Fisher seldom speaks in public on education without uttering something that comes directly home to teachers. In his address at Oxford to the School of Instruction for Officers he said,—“The probable danger which the teacher had to confront was the temptation of trying to give his class too much at one time. The secret of good teaching was to make ourself absolutely certain that the class—even the stupidest member of the class—should carry away with him two or three definite ideas as the result of the lecture—not facts but ideas. They did not want to ‘cram’ the class with facts but to give them thoughts to enable them to organize facts.”

EDUCATION IN ENGLAND.

THE JANUARY CONFERENCES.

FOR some years past the month of January has been marked by the holding of educational conferences and the annual meetings of different associations whose members find in the Christmas vacation a convenient opportunity for attending meetings in London. Some years ago the Teachers' Guild made an attempt to bring these meetings and conferences together in the University of London building at South Kensington. This attempt was only a partial success since certain of the bodies concerned had become accustomed to holding their meetings elsewhere and were reluctant to make any change. Thus, it happens

that although a joint Conference is now held every year, several of the more important bodies of teachers meet apart. For example, the Incorporated Association of Headmasters in Secondary Schools meets in the imposing, if somewhat gloomy, precincts of the Guildhall, the municipal home of the City Corporation. The Association of Assistant Masters in Secondary Schools meets in the London Day Training College, although the Assistant Mistresses form part of the Joint Conference. It is, perhaps to be regretted that the well-intentioned scheme of the Teachers' Guild has not been fully carried out since there are obvious advantages in bringing teachers of all types under the same roof, where they may hold their separate business meetings during the day and unite together for the combined discussion of broad educational questions after their sectional purposes have been fulfilled. Public attention centres mainly on the doings of the Joint Conference which is usually addressed at its opening meeting by a speaker who is eminent in the educational world.

MR. FISHER'S ADDRESS TO THE CONFERENCE.

This year, for example, the first meeting was addressed by Mr. H. A. L. Fisher, President of the Board of the Education, who had for his Chairman at the gathering Mr. Augustine Birrell, a former President of the Board. Mr. Fisher has been recently returned to Parliament as a representative of the combined English Universities other than Oxford, Cambridge and London, which have separate representation. He was in his happiest vein and a very large number of people were gathered to hear him. So great was the attendance that he had to deliver his address to two separate audiences. His subject was "The Art of Keeping Alive", which, he urged, was an art especially important for teachers since the quality of their instruction must depend upon the living force within them. It was no easy task for teachers to keep alive in the full sense of the term since teaching belonged to a group of sheltered callings in which vegetation was more easy than in the open professions. Since the world was about to witness before long a considerable expansion in the importance of teaching work and the number of those who practised it, it became important that teachers should avoid urging any reform, however beneficial it might seem, which would result in increasing the inert, mechanical and somnolent elements in the national life. If there was to be a public system of education in a country, the teacher was as much an object of public interest as the taught and this not at one point of time only but through every stage of his teaching life. It thus became necessary to require something from teachers beyond those initial qualifications which were demanded at the time of their entrance upon the work. Such qualifications should indicate not only the possession of a modest outfit for the journey but a promise of staying power for the whole course. The hardest problem of educational statesmanship was not to find and test the teacher but to keep him alive and interested in the continuous exercises of his craft.

The address was mainly concerned with suggestions as to how a teacher should proceed to maintain vigour and zeal in his work, and Mr. Fisher pointed out that it was stupid to overwork and ruinous to coddle. Fret, fuss and bustle were the arch foes of that animated and steady equanimity which was the most effectual pillar of physical

health. Physical health he described as that condition of body most conducive to the discharge of those functions which a person had undertaken to perform. The art of keeping alive was one thing and the art of longevity was another. The pursuit of scholarship and the execution of good work, especially in the intellectual and artistic fields, would generally demand severe physical strain, but unless in every generation men and women had been ready to take physical risks the best part of human progress would never have been accomplished. One of the problems for the learner was to keep his power of curiosity fresh because it was this inquisitive and questioning spirit which was one of the vital sparks in a scholar's life. One enquiry led to another by a natural and irresistible sequence and the ordinary years of a man's existence seemed all too short to compass the tasks which he desired to accomplish.

HOLIDAYS.

After speaking of the value of kindly sympathy and friendship for one's juniors as being not only an enduring source of happiness but in itself a kind of elixir of youth, the speaker went on to describe the right use and purpose of holidays which he said were not ends in themselves but means to the general improvement of the working life. Every holiday should bring with it real development of experience. In conclusion Mr. Fisher summarised his philosophy on holidays in fourteen humorous statements which included the advice to plan a holiday carefully while being ready to abandon the plan on the slightest provocation; never to go North when it was possible to go South; to walk rather than to ride and to ride rather than drive; to choose holiday books on the principle that one of the main uses of leisure was to feed the imagination and, finally, that on occasions a very good holiday can be taken at home by changing the hour of breakfast.

COLONEL SIR RONALD ROSS ON HEALTH TRAINING.

At the annual meeting of the Association of Science Masters in Public Schools Col. Sir Ronald Ross in his presidential address said that he thought that the British system of physical education had deservedly set the fashion throughout the world. It had been the great merit of British education to have discovered the superlative educating capacity of what were often called mere pastimes and amusements. Speaking from his experience as an army medical officer during the war he could say with certainty that a period of open-air military training under discipline, combined with good food, greatly improved the physical health and the mental powers of young men, to say nothing of its effects on their manners and vigour. If compulsory military training were thought undesirable or impossible, he would nevertheless suggest as an alternative a form of what he called health conscription, consisting of at least a fortnight's compulsory physical training under discipline and in the open air for young people of both sexes during the ages of say fifteen and twenty. Although this might be objected to on the score of expense and as interfering with the liberty of the individual, he considered that the only alternative to some such project was the continued deterioration of body and mind among our people.

THE PORCH AND THE TEMPLE.

Speaking of educational method in general Sir Ronald said that in his opinion the actual knowledge obtained by the pupils in our schools did not amount to very much. Of this he did not complain so much as of the fact that the information given was often wrongly directed. Our teaching had been concerned chiefly with mathematics and classics, with the outlines of history and of English literature but very few young men knew even the aims and objects of the science of mathematics and still less of its applications. In this, as in literary studies, they had not been pushed fast enough into the heart of the subject but had spent their school days in a minute study of details in the elementary stages instead of going on to some knowledge of the matter and value of the subject itself. They had "pottered about the porch without ever entering into the temple." As to natural Science he could not conceive how anyone who did not possess some broad knowledge of the immense accumulation of facts about nature collected by humanity during the last 2,000 years could dare to call himself an educated person. The intellectual side of life was too frequently ignored or even despised by the masses of the people, with the result that their judgment was starved for want of facts and that they became too often the slaves of fads and unproved dogmas of every description.

PROFESSOR NUNN ON SCIENCE TEACHING.

At a joint meeting of the National Association of Manual Training Teachers with the Educational Handwork Association, Professor T. P. Nunn, Vice-Principal of the London Day Training College, gave an admirable address on the co-ordination of handicrafts and science in the new continuation schools which are to be established under the Education Act of last year. He pointed out that these schools would probably be of many different types. Some would take up advanced and specialised work, others would provide for children of 14 who had just left the public elementary schools and were not yet sufficiently well-prepared to take up advanced studies. All would probably find it necessary to devote time and attention to manual training and science teaching. Between these two there ought to be a closer co-ordination than hitherto. The study of science was best promoted in the early stages by the manipulation of material and children should be encouraged as far as practicable to construct their own apparatus. In illustration of this point Professor Nunn exhibited some excellent appliances of a simple character to be used in the elementary teaching of astronomy. These included a device for showing the sun's apparent path across the sky and also a home-made sextant and other instruments. He urged that the teacher of science should be sufficiently well equipped in the matter of manual dexterity to make appliances and to direct his pupils in making them. While, on the other hand, the teacher of handicraft should know enough of science to make him able to suggest useful exercises to his pupils in the construction of simple apparatus.

MR. G. K. DEVADHAR ON THE EDUCATION OF WOMEN IN INDIA.

The Association of Head Mistresses in Secondary Schools was addressed by Mr. G. K. Devadhar, of the Servants of India Society,

who spoke on the education of women in India. He said that 5·2 per cent of the men and 1 per cent women were being educated in 1915-1916. Progress in regard to the education of women was slow but public opinion was growing in favour of its extension. During the last twelve years the number of women in schools and colleges had more than doubled and the popularity of the movement would grow more rapidly if more educational facilities were made available. He appealed to his audience to use all their power as teachers and citizens to secure for the women of India the education for which both nature and their inherent culture had fitted them and without which India's progress as a nation must be delayed. One of the chief needs was an increase in the number of scholarships available for women students and this ought to be the concern of the Government which ought generally to undertake the development of a vigorous educational policy. Mrs. Fawcett, the well-known leader of the women's movement in England, said that the present time was one of great hope for the women of India and that British women were justified in exercising to the full their newly acquired political power on behalf of their Indian sisters. In doing this, however, they should aim at promoting the development by the Indian women themselves of a system of education best suited to their own needs. Miss Ashworth, late Inspector of Girls' Schools in Bombay, stated that she had recently become of opinion that education in India should be both compulsory and free. If India was to hold her place among the nations of the future, her daughters must receive a modern education and in view of the comparative poverty of the country the schools ought to be free.

THE UTILITY MOTIVE IN EDUCATION.

Some very important discussions have been taking place in regard to the function of the new Continuation Schools. The political Labour Party in England is steadily opposed to any attempt to turn these schools into places of narrow vocational training. In this attitude they are supported by the best educational opinion of the country. On the other hand it is feared that many employers of labour such as are largely represented on our Local Education Committees, will desire their young employees to receive instruction in trades at the expense of the public. Professor Adams of the London University dealt with this question in an address entitled "Utility Motive in Education". He suggested that the opposition between the two groups was not so rigid as would at first sight appear. As an example he mentioned botany, a subject taken in girls' schools as a means of culture and taken by a medical student for the sake of passing an examination. To a teacher the literature, mathematics and pure science that he acquired become materials of his professional work; what was culture to other men was for him a stock-in-trade, the means of making a living. The fact was that the separation between the cultural and instrumental was not by any means so clear as was often assumed. It might be possible to combine the two. The utilitarian claims were so strong and made such vigorous appeal to the plain man who had increasing power in directing education, that it was necessary for those who uphold the claims of culture to be on the alert. Their case was stronger since there were so many examples in which studies undertaken in the first instance for purely scientific reasons had afterwards become of great value in

practical life. All studies should be useful and since man was one and indivisible he must be trained to hold his own in both spheres, cultural and utilitarian. Knowledge that refined a man's character was as useful as knowledge that increased his productive power in the material sense.

FRANK ROSCOE.

THE ROMANIC ALPHABET.

MANY are the ways in which societies and individuals stand in their own light, because they cannot overcome the obstacles created by their own prejudices or sentiments, and few more striking instances of this can be found than the extraordinary opposition to or rather refusal even to consider the proposal to substitute a Romanic character for the present alphabets of India. All kinds of remedies are proposed for the present unsatisfactory condition of education, while the two things which should obviously be done at once, and could be done without causing a pang of pain to anybody except the publishers of books, cannot win popular approval. These two things are acceptance of the vernaculars as the media of instruction in our schools and the use of the Romanic alphabet. We propose to say something on the latter subject as it has not yet been honoured with notice in this magazine.

The exact meaning of the proposal to substitute the Romanic character for the Indian alphabets must be defined since, simple as it is, those who discuss the question seem for the most part to be incapable of taking it in the right way. The proposal does not mean interference with the vernaculars in a way to affect them injuriously, it means that for the multitudinous alphabets of India,—alphabets which display all the faults alphabets can be made to exhibit,—one alphabet should be substituted which, by all impartial and competent judges, is acknowledged to be the best yet invented, *i.e.*, the Romanic as adapted to the vernaculars of India. By a Romanic alphabet we mean that modification of the ordinary Roman which has provided a special symbol for each separate sound found in the Indian languages. This alphabet contains about seventy characters but no language requires the use of all of them. He who has learnt these can read any of the languages at once when printed in the same character.

Perhaps it will help to a better understanding if we state clearly what it is we desire and expect to attain by this simple expedient.

1. The lightening of the burden of work in the schools by eliminating nearly all the labour now expended in learning to read several sets of symbols for the same sounds. One set of symbols, and that the easiest and best, will do the work of all.

2. The prevention of the enormous economic waste occasioned by the use of the vernacular alphabets in printing offices. If one kind of type were used any office could print all the languages.

3. The easier acquisition of the languages by those who need to learn more than one. Owing to the differences in the symbols employed the similarity of one language to another of the same family is obscured and its acquisition rendered far more difficult.

4. The breaking down of one of the chief barriers to the creation of a common national life and the initiation of tendencies which would in time lead to the creation of two great languages to take the place of the present multitude.

Before showing why these great results may be expected to flow from the adoption of the Romanic alphabet we have to justify our preference for the Romanic. Some will say, "Why not employ one of the vernacular alphabets instead"? We reply, "Because none of them have sufficient symbols to do the work, because all are intrinsically bad as alphabets, and because India should for her own sake choose the best if she makes the change, and the best is that which the rest of the world has accepted." Our Hindu friends will say that the Devanagari is the most perfect alphabet although it is obvious that it has no signs for many sounds and is slow to write. Is it not possible that their opinion springs rather from a reverence which rests upon a religious sentiment? Do they not realise that the Sanskrit character is itself a derivative from the older forms found in the Asoka inscriptions, and that if they introduce new forms necessary to make it a complete record of the spoken sounds it will lose its sacred character? Further still, do they not consider that since they must know English they would still have two alphabets to learn instead of one? Our Mahommedan friends will make similar claims for the Arabic character, although it is clear that it is very imperfect. This imperfection is especially manifest in Sindhi which is able to gain what it wants by free use of dots under and over the letters themselves.

The Roman has gradually become the alphabet of the greater part of the civilised world, and the literature printed in it must exceed that of all the literature printed in the vernaculars in the proportion of thousands to one. It is too late for India to convert the rest of the world to her cumbrous characters; it will be to her very great profit to follow the lead of other civilised nations, and she should do this now before powerful vested interests make change more difficult. India has decided to accept Western learning and must needs study it through the languages in which it is embodied. She should hasten to bring herself into line in this simple matter.

We now treat of these points in greater detail.

1. Owing to the complicated forms of the present Indian alphabets and the multitude of conjoint forms to be learned, it takes a child much longer to learn to read his own vernacular than it would if the Romanic were employed; and when he has accomplished his task he may look forward to a repetition of his labours so soon as he begins another language. If he aspires to higher education he must add a knowledge of the characters employed in his second language and in English and no one of these is any help to the other. No gain of educational value accrues from this. The method of writing each of these languages varies, and one cause of the present bad penmanship in our schools is just this, that several sets of symbols are learned and each sets up muscular habits which are different from those required in writing another. Two courses of copy-writing are required instead of one, and the result is not good in either. We do not exaggerate when we say that the adoption of the Romanic alphabet would be equal to a gain of a clear year in the educational life of our high school boys and girls.

2. In connection with printing we used the phrase 'enormous economic waste'. No milder term would express the facts. If the Romanic were used the work of type-setting would be done much quicker and with greater ease, the matter would take up less room and be more easily corrected. The space occupied by the plant in a composing room would be reduced by about one third, and the cost of establishing a printing office would be very considerably reduced. Any office could print any language and the present trouble of finding an office which can do work in all languages would disappear. The saving in the cost of printing would be considerable, the production of vernacular literature would be stimulated and more purchasers would be forthcoming, because there are many who could with little effort learn to read more than one language, if the barrier set up by the various alphabets were removed. An educated Maratha, for example, would find little difficulty in reading Gujarati, Urdu, Bengali or Uriya.

3. There are many who find it necessary to learn more than one language and all such are confronted with the difficulty set up by the characters. Those who can speak a language often cannot communicate in writing because they do not know the characters, and even when they do their efforts are clumsy and slow. The various so-called scripts, Modi for example, are difficult to learn and inferior to the Romanic in legibility; the majority of the educated seldom use them and are therefore confined to the use of the stiffer printed characters and know not the benefit of a truly cursive script.

4. The need of a universal language for India is generally acknowledged and many are of opinion that one language should be universally taught, but their aims must be considered to be chimerical; languages cannot be artificially imposed in this way. The only method which offers any possibility of success is that of setting on foot and encouraging tendencies which might eventually assimilate the vernaculars to one another. The greatest obstacle in the way of such assimilation is the existence of so many difficult alphabets. If one alphabet were employed, the tendency towards assimilation would be greatly quickened, and it would be possible to hope that some day we might have two great vernaculars instead of the present multitude of smaller ones.

To sum up, it is almost impossible to exaggerate the benefit which would accrue to the country if the proposed change were put into force. No greater blessing can be conferred upon India in general or upon the cause of education in particular than that of persuading its people to give up the multitudinous alphabets in favour of that which has been scientifically demonstrated to be the best that the world has yet produced. Teachers need not fear its adoption for it is very easy to learn and to teach and would greatly facilitate their work; the publisher will move as the times move and the change would hurt him little, if at all; the patriot would see his cherished ideals coming near to accomplishment; the foreigner would be able to do better in his study of the vernaculars, the study which alone can bring him into close touch with the Indian; the educationalist would see one of his most formidable obstacles removed and an additional year at his disposal for profitable work.

Can anything practical be done? As a boy can learn the Romanic far quicker than the indigenous character he should be taught it in primary schools. The high school student can learn it in an hour or two,

It would be of great service if all Government records were written in it, and an intelligent clerk could learn to write it freely in a few hours. Why wait for sentiment when the advantages to be derived from its use are so great? All that is needed is to offer some encouragement to its use and the merits of the system would soon secure its complete triumph. We conclude with a repetition of our first statement that in this matter Indians are standing in their own light. If they once realised how great would be the advantages to be derived from the use of the Romanic alphabet, they would demand that it should be brought into use with the least possible delay.

A. DARBY.

THE PROBLEM OF SECONDARY EDUCATION II.

IN the first section of this article we maintained that the level of Secondary Education attained by the average pupil is going down and we set ourselves to enumerate the causes of this degeneration. Among them we reckoned first and foremost the insufficient preparation of the pupil before he takes to English Education; next the plague; and thirdly the irrational application of modern methods of teaching. We have illustrated the abuse of method (in itself sound) by the manner in which the direct method of teaching English has been applied. But the subjects where method has really run amok are History and Geography. In English Teaching, at least, the method used was right. The fault was that it was not well understood and was often entrusted to men ignorant of its use. In the case of History and Geography the method is positively wrong. The method is out-lined by Mr. Marsden in his books. History at present is taught by stories up to the fifth English standard and then is introduced a continuous but very condensed history of the British Empire in the last two standards. Now apart from the merits of his books we protest against keeping our boys up to the age of fourteen on nothing better than stray stories from histories. At this age the stories, instead of making history interesting, actually produce disgust for the subject in the minds of students. A milk bottle has its use, but if we insert it in the mouth of a boy of ten he will throw it in our face, if he feels he is free to do so. While history may be introduced by stories when a pupil is in the third vernacular standard it is provoking to suggest their use for six years after. First they are made to read stories from Indian history in their own vernacular, then a few stories from the English and Indian histories written in English and finally the history of the British Empire. We protest against such an extended use of isolated stories up to an advanced age, but it is unnecessary to criticise here the methods of these books. For a detailed criticism the readers may consult the Report of the First Gujarat Educational Conference. It will suffice to say that even these stories have either no historical value or refer to pre-Moghal and Mahomedan periods, and are not likely to give a correct idea of the greatness of the founders of the Moghal and Maratha powers, or to cultivate a historical sense in the pupil. In the history of the British Empire, the Moghals are given fourteen pages and the Marathas have eight. The

sketches used by Matriculation students and universally condemned by educationists would be superior to this book.

With Geography things are not very different. All talk of making Geography interesting but very few know how to do it. We are told that no energy should be wasted in cramming the names of towns and rivers and capes and that the study of geography means the study of the people, of physical features, of climate, commerce, vegetation and animals in a country. Now there are two methods of study, either to remember facts or to deduce them by reasoning. In the first place the latter method can be used only in higher classes and again there is hardly a book used in Indian schools which shows how to do it. There is generally a curt discussion in the beginning and then the whole of the book is a catalogue of facts and figures. If we have to remember anything, preference must certainly be given to towns and rivers and not to population and area. It is curious that, while in the study of history the pupils are forbidden the use of reason up to the very last standard, in the study of geography they are required to use it early in the third vernacular standard. As in the case of history most schools are more or less forced by the Department to use Marsden's books on geography. A casual glance at these books will suffice to show that, excepting perhaps his geography for senior classes, there is nothing distinctive about them. We must admit however that his books on Geography have not been injurious like his story books on history. Geography has always been more or less neglected because of its small importance for examinations in the school or in the University.

The new method proposed for the teaching of history and geography is the so called concentric method. In this method it is proposed to lead on the boy by widening the circle of his information from year to year. The success of such a method depends on two or three conditions which are not always obtained in Indian schools. First the teacher has to be extremely painstaking. The previous year's preparation often does not suffice for the current year. Secondly the teacher should be in charge of the same class for about three years; otherwise much time is lost before the teacher judges the boys and they get familiar with his methods. Thirdly it makes the boy too much dependent on the teacher. A short absence from the school either for sickness or some other cause often throws the boy out of gear and his progress is arrested. Any one acquainted with the condition of schools in this Presidency will admit that painstaking teachers, continuity of teaching and scrupulously regular boys are seldom found even separately, much less together. Even those schools which are fortunate enough to have all these three requirements find their efforts wasted at the appearance of plague. It is no wonder that under these conditions the method has not only not yielded what was expected of it but has actually proved harmful.

One more cause that has operated to bring about the present unsatisfactory condition of Secondary Education is the gradual disappearance of home education during the last thirty years. While the guardians do deserve to be blamed for this we must remember that much of it is due to unavoidable causes. Weakening of the old ties in a joint family and consequent absence of old ladies in a house, long office hours often extending to 7 or 8 p.m., the fashion of spending evenings at a club, weakening of faith and the disappearance of regular recital of religious

books at home, or religious sermons in temples, all these have deprived a boy of what little home education he obtained twenty years ago. The old traditions have vanished and in some cases rightly, but their place has not yet been taken by new ones. The things have grown worse by the appalling toll taken by the plague from among young men from the year 1896. If it becomes possible to collect figures it will be seen that there is a heavy percentage of boys who lost their parents when they were quite young.

The rapid growth in the numbers coming in for Secondary Education, and the tardiness of the Government to meet the demand have thrown a fresh burden on schools managed by private agencies. These latter are naturally not competent to bear this, owing to their precarious financial condition. Moreover the standard of life is higher and prices have risen at least 50 per cent. Things that would have been considered luxuries in 1898 have become now the necessities of life and it is getting harder for private schools to attract better men. Even those few that come, soon learn to search for private pupils. In towns this has become a positive evil. Owing to the general unpreparedness of the boys a teacher does not find it difficult to pick up a few pupils. He is thus able to make a substantial addition to his monthly salary but has to work for three or four hours outside the school. The school work, which then becomes of secondary importance, naturally suffers a good deal.

These are the more important of the causes that have brought down the level of Secondary Education in this Presidency. They are rather peculiar inasmuch as they have worked slowly for a long time and therefore escape observation by educationists who are not in close touch with the difficulties of Secondary schools. The managers of different schools are fighting them as best as they can, but their efforts have obtained but little success for want of organization between themselves and co-operation with the Department. No amount of revision in curricula can improve matters until these root causes are removed.

To point out defects is easy enough; it is more difficult to suggest remedies. What may appear to be a very good solution on paper may turn out to be quite useless, if not positively injurious. In this respect therefore we cannot do any thing more than indicate the possible direction we should take in order to counteract the evils.

One obvious solution will be to retrace the steps taken and that will be quite necessary where we are moving in a positively wrong direction. In those cases, however, where our direction is right but we have lost our way it would not be wise to retrace our steps even if it were possible to do so. In spite of difficulties some advance has been made along these wrong tracks and to return now to the starting point means more waste of energy. We should therefore take some cross-way or prepare one if necessary and reach the right track as soon as possible. For example, it would not be wise to drop the Direct method of teaching English. The method is good and where it is tried by men well trained in its use it has shown good results. The mistake committed was that it was forced on those who could not understand it. Much progress however has been made in spite of difficulties and it will be unwise to discard the advantages. At the same time it will be wrong to allow things to take their

course without proper guidance. The Department must now concentrate all its energies on one point, to train teachers in the use of the Direct method. The small experiment of placing two good teachers at the disposal of private schools in Poona, to improve their staffs, did much good. It is not clear why it was not extended to all district towns. The two gentlemen are now transferred to Ahmednagar and their work in Poona is discontinued. Are all teachers in Poona schools now excellent teachers by the Direct method? Are no more new teachers admitted into private schools?

The experiment in Poona did much good but it was an insufficient attempt to meet the evil. As the instructors were men without any high academical qualifications and without any better hall-mark of their teaching abilities than the S.T.C.D., their work was restricted in many cases to the undergraduate staff in the lower school. The graduate teachers working in the upper classes are still without any help and as it is this part of the staff that gives tone to the teaching in a school, the work done on the lower staff is partly wasted. There is only one remedy for this and it is to open freely Secondary Teachers' Colleges in different centres in the Presidency where anybody who wants to qualify himself as a teacher can do so. The present college in Bombay does not satisfy one fifth of the demand.

With regard to the teaching of history, however, there is no alternative but to retrace our steps. The very direction taken is wrong and we are going further and further from the goal. It is provoking to suggest that history is learnt by advanced students by reading stories. In some quarters it is even suspected that this is only a disguised attempt of the Department to keep our boys ignorant of history. There is of course no truth in the allegation. It is noted here only to show what the effects of the attempt have been and how it has brought to the Department undeserved censure.

When introducing a new method care must always be taken in one respect. There should never be compulsion of any sort, direct or indirect. The Department has about two dozen schools under its direct control where it can try and demonstrate the advantages of its methods. If they are real, the methods are sure to be copied in private schools. Like most human beings a teacher is by nature a conservative fellow, but he is not on that account less ready to pick up what will be to his advantage. Compulsion is the worst method of convincing and if it is not possible to convince a teacher of the superiority of our methods by any other means, it will be in the interest of the pupils to allow the teacher to stick to his own.

As regards the insufficient preparation of the boys before they enter secondary schools, there is a class of educationists who propose that we should not begin English teaching until the pupil has completed his sixth or seventh vernacular standard. There is no doubt, the tone of the education in secondary schools will greatly improve by this arrangement but two years are wasted thereby. It will be possible to gain the same perfection without any wastage by transferring the three lower standards in secondary schools to the primary schools, and teaching English there as a subject of secondary importance. The change has a psychological importance. In secondary schools these are the lowest standards and are therefore entrusted, except in Government High

Schools, to 'matric' teachers. There is no wish to cast a slur on them, but it cannot be denied that they are not as a general rule competent to teach Arithmetic, Indian History and Vernacular—at least in the beginning. It is common knowledge that an average matriculation candidate pays more attention to Geometry book-work, English History and Vernacular literature and is somewhat careless about his Arithmetic, Indian History and Vernacular Grammar and Dictation. Moreover, in an English school these subjects become of secondary importance and English receives most of the care and attention of the headmaster as well as the inspector. If these standards are transferred to the primary schools they will be the three higher standards there and will naturally have the best teachers in the school. These are vernacular-trained men; they are more competent as teachers than raw Matriculates, and are also better qualified to teach subjects other than English. In some schools an attempt is made to employ vernacular-trained teachers for teaching Arithmetic, Indian History and Vernacular but, somehow, in an English school they do not work with the same confidence with which they work in a primary school where they feel more at home. A graduate or a qualified undergraduate may be entrusted with the teaching of English in these classes.

Different schools have their own special difficulties caused by the annual visits of the plague and it is nearly impossible to suggest a uniform remedy. The difficulties however are usually twofold. When making promotions we are confronted with a serious problem. It is not good to be strict, for the boy in that case loses twelve months for no fault of his own. It is also not wise to be lax, for a raw boy often degenerates and gets worse in a higher standard. Again, at the appearance of the plague the attendance rapidly sinks down, the income suffers and the schools have to dismiss a large portion of their staff. New and raw men have to be again appointed when the plague subsides and so the teaching work suffers heavily.

It may appear at first sight that six-monthly promotions would be a good compromise for the first difficulty. This means doubling the number of classes and only big schools can afford the expenses. Even these find it beyond their means to maintain them in plague days. To meet the second difficulty it was the duty of the Department to come forward and give assurance to the managers of private schools that it would take upon itself a substantial portion of the additional expenses, incurred by them by retaining the staff and thus securing continuity of teaching. To the best of our knowledge this has never been done; on the contrary instances are known where the usual grants were in danger of being curtailed because the schools were not, owing to reduction in staff, able to show their expenses to be three times the grant.

As has been said before, the school-managers have fought against this evil single handed and only recently the schools in Poona have discovered a solution which might turn out to be universally applicable. In order to steady their finances they now take fees from a student in plague days even if he is absent, and give him extra coaching when he returns. They can thus maintain most of the staff, and the student does not grudge paying because he gets extra coaching. The experiment has not had as yet a fair trial but there is every reason to hope that it will succeed.

Just like the difficulties caused by the plague, the problem of securing good teachers cannot be satisfactorily solved until the Department becomes more liberal in its grants. The rise in fee rates in 1912 gave some relief, but now the burden has become unbearable to many middle class parents and it cannot be increased. The Department gives at present small amounts for what are called efficiency grants, chiefly intended for the benefit of teachers but the plan is ill-conceived and one doubts if the Department has really appreciated the difficulties of private schools.

At present the attitude of the Department, in paying one-third grants to schools, is that it is doing a great favour to them. The facts are really otherwise. The aided schools are helping the Department by educating so many young boys at only one-third of the expense the Department would otherwise have to incur. It is now high time for the Government to give up the old way of looking at the problem and consider it as their sacred duty to educate every boy who demands education. If only their angle of vision is changed they will begin to feel grateful to private schools for the valuable help they receive and will not consider half grants as a ridiculous wastage, as some officers do at present. Just before the war there was a proposal to give half grants to secondary schools. It was probably dropped because of the financial strain during the last four years. Now that the war is over the Department should take this most necessary and important step at its earliest convenience.

The problem of home education is the most important but the most difficult to solve. The old Indian home is broken and the new one is not as yet formed. Society is in transition and individuals have to suffer. It cannot be predicted when this transition will be complete. The most important factor that will accelerate it is the education of girls and mothers. This is however a subject too vast to be discussed here and we cannot do more than indicate its necessity.

We have at the very beginning limited our discussion to those causes only which are ordinarily left unnoticed. No attempt therefore is made here to discuss even such important questions as the medium of instruction. Much has been said on this question and it will suffice to refer to the excellent article by Prof. V. B. Naik in the Fergusson College Magazine (July 1917). Nor should it be supposed that we underrate the value of improvements in curricula or in equipment in Secondary Schools. The point to be urged is that they cannot bring about the desired results until these root causes are removed. A rotten pillar may appear better if polished but does not become stronger on that account. It must be removed and replaced by another. Many of the attempts made to improve Secondary Education are of the nature of polish. Educationists must now stop this self deception. Two generations of students have already suffered from it. It is hoped that the above discussion will point out where the evil lies and will thus enable educationists to take right steps to save the next generation of students.

M. R. PARANJPE.

DECIMAL COINAGE. II.

IN the first section of this article the history of the movement towards Decimal Coinage was traced and the advantage suggested of adopting the Latin Union Coinage System. Whether or not this ideal is

realisable at present or in the future, let us consider the present situation as regards the English Coinage System. For many years past the policy of decimalizing the coinage has been advocated by a society called the Decimal Association and opinion has been divided between two schemes; in the one the sovereign remains unaltered, in the other the penny. These schemes have been called and are generally known as the pound-mil and dollar-cent schemes. (See the *Encyclopædia Britannica*—Decimal Coinage). The skeletons of these schemes are given in the annexed tables.

POUND-MIL.

Gold.	1,000 mils = 1 sovereign.
„	500 mils = half sovereign.
Silver.	200 mils = 4 shillings.
„	100 mils = 2 shillings.
„	50 mils = 1 shilling.
„	25 mils = six pence.
Nickel.	10 mils and 5 mils.
Bronze.	4, 3, 2 and 1 mil pieces.

DOLLAR-CENT.

Bronze.	$\frac{1}{2}$ cent = 1 farthing,
„	1 cent = 1 half penny,
„	2 cents = 1 penny.
Nickel.	5 cents = $2\frac{1}{2}$ pence.
Silver.	10 cents = 5 pence.
„	25 cents = $\frac{1}{4}$ dollar.
„	50 cents = $\frac{1}{2}$ dollar.
„	100 cents = 1 dollar = 4s. 2d.
Gold.	500 cents = 5 dollars = £1. os. 10d.

Neither of these schemes commands universal assent; each has its merits and drawbacks in relation to the present coinage. There are those who would reject the pound-mil scheme because it alters the penny and at the same time would also reject the dollar-cent scheme because it alters the value of the pound sterling. The pound sterling is worth 240 pence, just as the pound Troy contains 250 penny weights and nobody can combine 1 and 240 into a decimal scale; had the relation been 250, or even 200, both parties could have been satisfied. The pound-mil scheme, it will be seen, preserves the value of the present pound sterling gold standard and has been endorsed by the Institute of Bankers, the Association of the Chambers of Commerce and the Decimal Association; as a consequence the gold and silver coins would retain their present values under new denominations; three silver coins would be abolished, the crown, half crown and three-penny piece and the present penny replaced by the 4 mil piece whose value is 0.96d. or the 5 mil piece worth 1.2d. If we could be assured that the penny and half-penny newspapers and stamps, tram and railway tickets, would be 4 mils and 2 mils respectively and not the higher equivalents 5 and 3 mils; or to render this certain, if the 5 and 3 mil coins were omitted, one of the principal objections voiced by the representatives of the labouring community would disappear. Paradoxical though it may appear, extreme divisibility of coinage is sometimes a drawback. The classes that deal in sovereigns seldom consider the value of a penny while the masses that deal in

pence consider the worth of even the farthing, a coin that no longer circulates, of which there is no corresponding stamp value and which is chiefly used by drapers who, by selling at $11\frac{3}{4}d.$ and $5\frac{3}{4}d.$ instead of a shilling or six pence, especially appeal to that class who take care of the pence well knowing that silver and gold are not so quickly dissipated as pence. The working man who travels daily by tram or train for a penny would be seriously affected by the ubiquitous penny being replaced by a 5 mil piece and the half penny by the 3 mil and if we can draw any analogy from the disappearance of the farthing (except in cases where quantity is being purchased), we might suppose that the mil as a coin will not exist except in the draper's 25, 26, 27, 28, 29 mils per yard in place of the old $6d.$, $6\frac{1}{4}d.$, $6\frac{1}{2}d.$, $6\frac{3}{4}d.$ Again, however, it might turn out that an extension of the coinage to a mil = $0.24d.$ = 3 pies would be a considerable benefit to the poorer classes in Great Britain, just as the division of the anna into 12 pies is of real benefit to the poorest classes in India and, so far then from considering the above arguments as a drawback, some would consider it a real advantage.

Turning now to the dollar-cent scheme, its most obvious feature is the preservation of the old English unit, the penny or Latin denarius, which has been in daily use for twelve centuries, though its intrinsic value has varied considerably during that period. Another advantage that it possesses is that it brings the British, the United States and other dollar using countries, into harmony but not identity, though this could be arranged without difficulty. Also little opposition need be expected from the labouring community or the retail tradesman, but considerable opposition from the whole of the commercial and banking community, who undoubtedly would be seriously inconvenienced by the change of gold standard: but it is going a little too far to say with some bankers that it is impossible to change the gold standard, by which they presumably mean so impracticable as to be accounted impossible.

The opponents of the Metric System and decimal coinage frequently refer to the paucity of factors of the number 10 compared with the number 12. This is a fundamental objection inherent in the denary system or counting by tens. The origin of the denary system is lost in antiquity, all nations use it and most scientific writers associate it with the 10 fingers of the two hands, or the primitive method of counting on the fingers. Had human beings been endowed with six fingers to each hand, the duodenary system would naturally have been created and the number system would have proceeded by dozens instead of by tens, with corresponding addition and multiplication tables to be memorised: (Leslie, *Philosophy of Arithmetic*, should be studied in this connection.) The duodenary scale is a part also of most nation's systems of measurement, in India, in England derived from the Latin uncia or twelfth, whence our ounce and inch, the Hebrews with their 12 tribes, the ancient Babylonians with their sexagesimal system from which the measurement of time and angle is derived. It is hardly probable that this use of 12 was due to the property of divisibility which now renders it serviceable and many writers perceive its origin in the number of complete lunations in the course of a year. However much we may juggle with our coinage and other measures, renaming, restamping and even debasing them, no one has yet had the courage to juggle with the denary system of notation and its consequent decimal system; not even

the inventors of Volapuk, Esperanto and other universal languages have ventured to realise the boon to be conferred on humanity by introducing a duodenary scale. In this connection therefore we can only look at the practical point of view, perfection being admittedly impossible. Simplification of calculation requires the denary scale, convenience in subdivision the duodenary or sexagesimal. We may further note that no nation that has adopted the decimal scale, either for coinage or weights and measures, has ever attempted to revert or even to consider these advantages of divisibility.

A second objection, which also carries great weight with some, is that certain fractional operations are more easily performed mentally than decimal ones. In retail trade prices have to be cut very close and the bargain instinct, especially prominent among women, requires that the shopkeeper, who has priced his goods at 6½d. a yard, shall be able rapidly to reckon the cost of 5¾ yards that the lady wants; as a problem in mental arithmetic he would argue that 6 yards would be 3s. 3d. and the ¾ yard to be subtracted would be taken at 6d. a yard; thus giving him 3s. 1½d. and a slight additional profit, with a similar false result if the price and length are interchanged. Under the same circumstances the French salesman, who is asked for 5.75 metres length at 65 centimes, provides himself with a piece of paper and ciphers it out. Of course this objection applies equally to all other measures compared with the metric ones. In essence it repeats once more the immense advantages possessed by the duodenary scale where all the fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{6}$, $\frac{5}{6}$, would be represented by a single decimal figure. French, American and Canadian shopkeepers thrive and their British equivalents will find compensations even if they fail entirely to circumvent this difficulty.

The one advantage a decimal coinage possesses, which outweighs all objections, is the facility it gives for all computations. Bookkeeping in all its forms, accountancy, banking, commerce with foreign countries especially in relation to catalogues with prices of goods, will all be immensely simplified and as international trade increases, the complete decimalization and unifying of all our measures (except time and angle) will follow as a logical consequence. An immense burden too will be removed from our primary education if all our different tables of measurement of length, with its derivatives square and cubic measure, our tables of weight and capacity combined with our money standard, were to be replaced by the simple metric system. Many educational bodies have pressed for the reform of our weights and measures and coinage system. The teaching of the metric system in all English schools was made compulsory in 1870. If the purpose was to educate the people up to the introduction of that system, that purpose has been lost sight of. We seem to be no nearer than we were in 1872. To the adoption of that universal world-wide system, which is yearly becoming more essential for international commerce and will be more and more necessitated by the keen competition for the world's trade. Then the British Parliament refused to take any share in the International Metric Commission or to contribute to the expenses of the Metric Bureau or even to share in its administration on the ground that the metric system was not legalised in Great Britain, though made permissive in 1864. In 1903 the Decimal Association asked 221 headmasters of schools to state whether they were in favour of decimalizing our weights, measures and

destruction while in use, thus affording an excellent measure of quality. Recognising the dearth of competent teachers for manual classes Mr. Buchanan puts forth a project for their selection and training, an urgent need if this branch of instruction is to succeed. Care must be taken to avoid over educating them in matters not connected with the special line, else they may be tempted to drift away to more "dignified" employment.

J. WALLACE.

REPETITION AS A CLASS-ROOM DEVICE.

IN every art there will be found certain methods, by the use of which the artist can work out his results from the material in hand with greater effect, and yet with more ease to himself. Here is an attempt to emphasise a well-known educational device that none can afford to neglect.

When we introduce and explain a new fact or principle to our class, the chain of reasoning that we follow appears so closely linked, and the conclusion that we are driving at, appears to be drawn so naturally and necessarily, that we do not like to be interrupted in the middle, and most often we are seriously upset if we are disturbed in our eloquent exposition by a query from a curious inquirer.

This sort of procedure is based upon the assumption that what appears so clear and easy to ourselves should appeal as such to others as well. And this is but natural. Because, as psychology teaches us, we cannot ordinarily realize the mental power and position of other persons, though of our age, or even of ourselves in our childhood. And in the case of our students, both these conditions combine to make it far more difficult for us to realize their mental capacity.

Our daily experience of the disappointing results also warns us that our system is mistaken. For, after we have clearly explained the theory in hand and have reached the obvious conclusion, what do we meet with, as a reward of so enthusiastic an exposition? If questioned on another occasion or, in the case of a teacher of a rather suspicious nature, just after finishing the explanation, the class as a whole too often disappoints us. For we find that only a few students, who were specially interested in the theme, or a few others, who had already covered the ground at home, or a few more, perhaps, who have cultivated the useful habit of closely following the teacher in everything, can retrace the steps in the chain so vividly set before them. The others can only reproduce a few ideas, here or there, retained on account of their brighter colours.

Finding this, we cannot but go over the same ground a second time, but under compulsion now though more cautiously, perhaps with some irritation too. Every one knows how often we are required to explain the same principle again and again, in grammar, in arithmetic,—in all subjects. This sort of repetition may occur on different occasions in the same standard, or in different standards, but for the same batch of students. And every time we have to do this how we chafe at, and find fault with, the class for displaying too great a power of forgetfulness.

This is, no doubt, "Repetition". But this is not such as is likely to bring permanent results to the class and also economy and ease to the teacher himself. The true Repetition is prompted by the remembrance that the class is quite a stranger to the subject that seems so easy to ourselves, and that, therefore, each link in the chain of arguments must be thoroughly grasped to allow it to be utilised as a *step* to further understanding. Secondly we must note that the audience before us is made up of students, having different grades of capacity and a variety of interests.

Only if we remember this, shall we realize the importance of abandoning continuous exposition and explanation leading to immediate conclusions. And then only shall we recognize the necessity of forming a habit of stopping at every natural stage and making the class *repeat* the portion just finished, by a variety of questions spread over the whole class. Let us remember, too, that this habit is not so easily formed as is conjectured, because it requires us to go against our very nature. *Repetitio mater studiorum*; this time-honoured motto is a key-note, not only to students in learning their lessons, but also to teachers for securing effective and permanent results from their work with the least possible labour.

The stopping and repetition spoken of above is of practical use in treating the portion actually in hand. Here is another break to be recommended in our class work which is also *repetition*, but in a broader sense. It consists in recalling to the class ideas already mastered by it, and suggested on the occasion by their analogy or contrast with the matter actually in hand.

Every subject in the school course will be found to afford ample scope for the working of this device too, and the class will be greatly benefitted by its constant application. In the case of school mathematics, for instance, this *recalling* will be found quite indispensable, as the development of that subject resembles the building of a house, where each part that is completed helps as a foundation or a support to the next. Secondly, as we all know, "History repeats itself". This repetition, *i.e.* the recurring of similar effects from a similar set of causes in the case of the History of different countries, or of different periods of the same country, has to be brought clearly to the notice of the class.

Let us take a more detailed survey of the working of this device in the case of language-teaching. To begin with, we can utilize this device even in the spelling stage of language study. When we come across a word spelt in a peculiar way, the class should stop and it should be required to find out, first from memory and then by actual reference to the previous portion, words of similar formation.

The class will be found to pick up the method quite easily and will give results that are astonishing as well as pleasing. To take a simple instance, suppose we come across the word 'Wedge'. When it is written on the board, the class marks that the letter 'd' is here silent. Then you ask for other words like it. At once hands go up and you get a volley of answers, 'edge,' 'bridge,' 'judge,' 'hedge'..... Perhaps, so many words of this type may not have suggested themselves even to you on the occasion.

Then suppose we read a new word "hungry", and refer it to the adverb hungrily and the noun hunger. Then the class should be asked to give other sets of the kind such as anger, angry, angrily. Or, this instance of 'hungry' might lead the class to collect instances of adjectives formed from nouns by the addition of 'y' such as sunny, cloudy, milky, rainy, sandy. Then we meet with an abstract noun "childhood". Here the class should give instances of "manhood," "boyhood," *etc.* Also, they might have to collect instances of other terminations such as 'ness', 'ity', used in forming abstract nouns.

This collection of odd instances might also become a good exercise for homework. The students should have a notebook assigned for the purpose, in which a page should be set aside for each peculiarity, and instances may be added at home as they occur in the class.

Higher work than this would be the recalling of constructions, such as Infinitive and Participial clauses, Prepositional or Adverbial phrases, Nominative absolute constructions, *etc.* In the case of these, the reference to older cases makes the actual class-work much easier. For then, the class very easily remembers how such clauses are to be turned into full sentences, and can also explain to us what purpose these constructions serve in the case in hand. So that we retain, and thereby regain, the full advantage of our treatment of the subject on former occasions.

The same method may be adopted for fixing idioms, figures of speech, *etc.* In standards VI & VII, the class can be taught to pick out and observe the methods of making an idea more impressive, *e.g.* by stating it in a negative or interrogative form or by exchanging the places of the subjects and predicates, or by opening a sentence with a clause, prepositional or adverbial. The larger the collection of such instances and the more readily they refer to former cases of the kind, the firmer will be fixed these methods of giving ideas more emphatic expression. And are not these methods very valuable as hints for writing composition?

There are also other practical advantages to the class. This device of 'recalling' will greatly minimise the usual necessity and stress of revision before examination, and will avoid the practice of dealing with the hard knots of the whole portion almost as if they were new points to be explained. Moreover, it will keep the class ever ready to show its full work to Superiors or Visitors.

R. S. JOSHI.

YEOTMAL LEAGUE SCOUTS CAMP AT JODAMOHA.

THIS camp was held by Mr. Chapman, League of Honour Commissioner, and Mr. Bevoor, Deputy League Commissioner, with the object of giving instruction in scouting to masters and boys.

In the early morning of December 27th the League Scouts ten in number and we masters in charge of them left Yeotmal and arrived at about 11 o'clock at Jodamoha, a village 12 miles distant from Yeotmal, Mr. Bevoor, who was already there, welcomed us and conducted us to our

camp which consisted of 3 small tents pitched in a field, with beautiful curtains of blue and white decorating the entrances. Before the scouts were dismissed for bath and dinner Mr. Bevoor spoke a few words to them as to the aim of the camp which was not 'to dine, sleep and gossip,' but to practise active wood-games and sports, the knowledge of which is essential for scouting. The boys then had their bath and dinner, followed by rest till 3-30 p.m. when they were ready in their uniform for orders. At 4 o'clock all of us started out for a walk, along the plain over the hills and through the dales in the neighbourhood of our camp, to study the topography of the place wherein the operations of the camp were laid. We soon reached a hillock where we received our first lesson in scouting. In the distance, behind the hill, there was a camel grazing beside its owner and Mr. Bevoor demonstrated to us how to observe them without being ourselves observed. We were to crawl up on all fours lying flat in the grass. On reaching the top we were slowly to raise our heads till we could get a view. But, if we thought the enemy was also watching, we were to keep our heads perfectly steady for a very long time so that the enemy would mistake us for a stump or a stone. One should remember that any movement of a limb against the sky-line cannot fail to attract attention. This practice being over, we began climbing up the steep hill, observing all the while notable features of the country. Soon we reached the top of the hill which was flat, full of pebbles and flints of white, green and amethyst colours, shaded by *salai* trees of scanty foliage and commanding a good view of the surrounding landscape. Then we walked along the length of the hill descended the further end and began to march to the main road through cotton fields, when we found one way blocked by a fence which had no gate. One of the scouts alertly opened up the fence with his staff and all passed right through, none troubling to set it right. Promptly their instructor brought home to them the necessity of observing the rule that if a scout open a way through a fence, he must close it.

Then followed a lesson in judging the height of a tree by the method of similar triangles. Then the troop of scouts was divided into two patrols with a leader for each. By this time the day was wearing away, darkness prevailed and all returned to camp for the night's rest which they had so well earned.

The next morning our field operations started at 7 o'clock. The scouts were to discover a tank in the jungle which was pointed out them on a topographical map of the place. The tank lay in a valley only about a mile and a half from the main road, distinguishable by a green row of trees on its bank and a well beaten path leading to it. On receiving the order to start, each ran off at random to discover it, trusting only to chance for success. Without being a Sherlock Holmes one might have at once hit upon its situation from its green border of trees, and the path leading to it. But an Indian boy is never taught to think on problems of everyday life; there is nothing that he learns in school which is not remote from his life. Give him the hardest quadratic or queerest factor and he will solve it; give him the simplest thing to do, he will as a rule muddle it. This problem being solved or found insoluble, some instruction was given in judging time and distance, climbing steep trees, discovering hidden objects and so on, till the morning hours were finished.

In the evening the boys played the despatch sending game. The seven scouts who represented the enemy, quartered themselves on the hill at different points. The camp was the besieged country. Three scouts were ordered to take a message across the hill to a friend of the besieged asking for help. Of the three messengers two succeeded in crossing the enemy lines unobserved but the third was caught.

On the third morning we took part in the hare and hounds race. Two scouts who played the hare had a start of 5 minutes and while they ran they dropped pieces of paper here and there to lay a trail for the patrol to follow. The hounds could trace the path of the hares but were not able to catch them. Then followed a relay race. One patrol was pitted against another to see which could get a message sent a long distance in the shortest time by means of relays of runners. The leader took his patrol out to the spot, dropped his scouts at convenient places and these acted as runners from one post to the next. The winning patrol, brought the message from a distance of $1\frac{1}{2}$ miles in 8 minutes. Then all sat together under the shade of a tree and Messrs. Chapman and Bevoor narrated some true stories to illustrate the code of honour prescribed by scout laws.

In the evening, we enjoyed a picnic in the thick jungle on the riverside. The boys themselves carried to the spot in their haversacks all the food and utensils they required. On reaching the selected site, some boys cleared the ground, some cut dry wood with their axes, some made a fire and some brought water. When the tea was ready, all ate and drank together, and then wandered here and there at their ease. Before returning they cleared the spot so as to leave no trace of their bivouac and when evening fell all returned to camp.

The next morning we left Jodamoha for Yeotmal. Our three days camp at Jodamoha taught us many things. Our troops of scouts contained boys from 15 to 20 years old and all proved equal to the strenuous walking of about 20 miles a day while in camp. How the habit of observation pays was well brought home to them in the wood-games. They will never forget the lessons of conduct that were impressed upon their minds by every act they were called on to perform as well as by precept and story. They have gained a store of health and pleasant memories of active enjoyment in this open air camp. The wood craft and sports which they newly learnt have had such a novel attraction that they often play them in the hills and wood near Yeotmal. Last but not least, our League Scouts have been observing the scout-law of doing a good turn to others whenever they find an opportunity.

V. N. SIRDESAI.

PUBLIC INSTRUCTION IN THE PUNJAB, 1917-18.*

Population.—19,576,647. *Males* 10,769,704. *Females* 8,806,943.

UNDER instruction, males, 400,999 or 3.72 per cent; females, 67,840 or 0.77 per cent; total 468,839 or 2.39 per cent. There is a decrease both in the number of schools and of pupils (1,666), chiefly in private

* Report of the Director of Public Instruction in the Punjab, with the Government Resolution thereon. Statistics are for British territory only.

institutions, and in primary scholars ; this is attributed to the prevalence of malaria and plague and to the war. Total expenditure rose to Rs. 1,14,72,852, an increase of Rs. 6,09,532.

Collegiate Education.—Arts Colleges 11 (an increase of one), with 4,597 pupils. The D. A.-V. College has over 1,000 pupils. Proposals are under consideration for 2 second grade colleges outside Lahore. Professional colleges 6, with 1,337 pupils, an increase chiefly in law and medical students. The percentage of passes at University Examinations was B.A. (Hon.) 82, B.A. (Pass) 54, B.Sc. (Hon.) 77, B.Sc. (Pass) 58, Intermediate Arts 65.6, Inter. Sc. 44.9. A scheme for a university diploma in commerce is before the Syndicate. A hostel for the Government College, Lahore, is, after twenty years discussion, now building.

Secondary Education.—Boys High Schools and English and Vernacular Middle Schools 434, with 111,777 pupils, a slight increase. Expenditure rose to Rs. 31,42,360 an increase of Rs. 1,62,082: of this rather less than a half is met by fees. Trained teachers are 66 per cent and the supply more than keeps pace with the demand so that unqualified teachers are gradually replaced by qualified. In two districts the introduction of English as an optional into Vernacular Middle Schools is being tentatively adopted and the Director thinks it will be adopted in the majority of schools but must be proved to be based on a genuine demand by monetary contribution. One effect should be the gradual assimilation in courses of instruction of the English and Vernacular Middle Schools. The vernacular has become the medium of instruction in the middle departments of Anglo-vernacular Schools in all subjects save English and it may be expected that one type of Middle School will arise offering English as an optional subject. On this subject however the Lieutenant-Governor forwards a note of warning, inviting attention to a "recent report of the Department of Education in Egypt, which attributes the deterioration in the knowledge of English to the substitution, 12 years ago, of Arabic (vernacular) for English as the medium of instruction in secondary schools, and recommends a reversal of that policy. Conditions in the Punjab and Egypt doubtless differ in many respects but there must also be many points of similarity."

Another change contemplated is the introduction of practical agriculture. Agriculture is said to be an increasingly popular subject, chiefly from a belief that a pass in it is easily secured and from its being taught largely from the text-book. A committee of the Syndicate has drawn up a scheme for a joint Matriculation and School Final Examination which is now under consideration by the university.

An Inspector notes that ninety-nine per cent of the sins of commission and omission of which schools are capable are perpetrated in the months of March and April, *i.e.*, the seasons of promotion examinations and transfer of pupils, which give rise to a host of irregularities on the part of headmasters and managers. Acts of indiscipline by boys are said to be infrequent. The criticism generally levelled at the products of secondary schools is one of 'lack of respect for their elders.' The Inspector points out that "this must be expected as long as the parent regards his school-going son as a privileged boy allowed to indulge in all sorts of irregularities provided he obtains class promotion every year ; and so long as the gulf between the teacher and the guardian remains as wide as it is to-day."

Primary Education.—Schools 5,084 against 4,918 the previous year: pupils 243,345, a decrease of 2,479. Expenditure rose to Rs. 16,77,222, an increase of Rs. 1,09,820. Out of 10,036 teachers 5,380 are trained: proposals to appoint a second teacher when the average attendance is over forty and when there are more than four classes are being carried into effect.

The two main features of the year are the scheme for expansion and the Act for compulsory education. The former aims at establishing Board schools at every centre where an average attendance of not less than fifty may be expected, provided a distance of two miles ordinarily intervenes between two schools. To effect this maps were prepared showing by distinguishing marks the situation of all schools in existence, proposed new schools, schools to be converted or raised to middle status, and the population which each school would serve, due regard being paid to physical features and other factors. These maps showed that middle schools require ultimately to be nearly trebled and primary nearly doubled. To meet the need a committee on District Board Educational Finance recommended and Government approved that five year programmes of expansion should be drawn up by Boards. The Board is required also to undertake definitely to complete the programme within the time. The contribution of Government from financial revenues to such programme is to be determined by assigning to the Board a grade calculated on the basis of its wealth, present expenditure on education, etc., e.g.: a Board graded at 80 would find one-fifth of the cost and Government the remaining four-fifths. A first condition of the award of a grant for such programme is the establishment of a satisfactory scale of salaries for teachers, since the provision of teachers is the first essential to expansion. Government undertakes to provide in addition to present grants, about two-thirds or 8 lakhs of the recurring cost. The grants vary from 50 to 100 per cent according to the claims and circumstances of each district. To non-recurring expenditure Government accepts a liability of 2 lakhs per annum for five years on condition the Boards provide half that amount.

The draft Compulsory Education Bill permits local bodies to remit fees for any boys compelled to attend, provided that reasonable compensation is paid to institutions under private management for any loss in fee income entailed on them by such remission.

Female Education.—Numbers were almost stationary, though schools have increased. The one college for women has this year been raised to full B.A. status and prepares five for the B.A., 19 for the Intermediate. Secondary girls schools are usually well equipped and staffed; they lack play grounds and physical training. Primary schools have difficulty in getting trained teachers. Five sixths of the total number of girls under instruction are in the lower primary stage; teachers are usually not competent to take the girls beyond this standard.

Education of Europeans.—34 public schools with 3,011 pupils. Direct expenditure rose to Rs. 3,72,752, an increase of Rs. 6,097 due to increased staff grants. Serious difficulty has been experienced owing to the war in recruiting masters for boys schools, and the Inspector thinks the difficulty will not cease with the war. Teachers serving in the Army Reserve of Officers who have become accustomed to a higher standard

of living will not be prepared to return to the "limited and impoverished life of an assistant master." The new regulations of the Indian Defence Force for the training of junior cadets have been much criticised by headmasters. They have put a stop to the development of the scouting movement except in the Christ Church School, Simla, and also to the rifle shooting competition for the European Schools Challenge Shield. A babies department has been organised to admit babies whose mothers have died while their fathers are on active service: twelve babies have been admitted; this department furnishes training for elder girls as nurses.

CORRESPONDENCE.

TO THE EDITOR.

SIR,—Now that the Board of Education has sanctioned experiments with Simplified Spelling in English Elementary Schools, the urgent question of spelling reform is likely to be of no little interest to the public, and it has occurred to us, that your readers would probably welcome the opportunity to hear more about this movement. Therefore, I have much pleasure in offering the enclosed article.

You will see from the eminent names in the margin of this paper, that we are not an association of cranks, but a body of earnest men seeking to make education at once a more interesting and more logical process for the child.

Yours faithfully,
J. MONTAGU,
Secretary,
Simplified Spelling Society.

P. S.—It is not generally known that the British child takes one year longer to learn to spell than the German child whose spelling is practically phonetic!

Presiding at the annual meeting of the Simplified Spelling Society (held at University College, London), Professor Walter Rippman said that Spelling reform was important, because our present spelling involved a great waste of the time of school children and was an obstacle to the spread of English as a world language. The Society had launched a petition asking for a Royal Commission on the subject. Such a Commission would enquire in the first place whether a simplification of English spelling would be advantageous. Then would come the much more difficult question as to the form the simplification should take. In the first place, what form of speech should be represented? We could not look forward to a spelling which would lead to one kind of English in one place and to a different kind in another place. Just as our stage did not change its dialect according to the country in which it performed, but had the same English speech in Dublin, Melbourne, London or New York, so we required a standard of speech before we could have a really uniform and satisfactory spelling. The next question would be as to what symbols should be used to represent the standard speech? The scheme of the Simplified Spelling Society used only existing letters, but the question would arise whether any new letters should be added? Here

there were many considerations to be taken into account, and the Society had received many suggestions on the point ; but not all those suggestions were practicable and valuable. With regard to a proposed new letter, it had to be considered whether it would be clearly legible even in small type, and whether it was artistic in form. He thought the details of the reform had by now been sufficiently discussed, and that it was no longer a time for pushing individual schemes. As to its own Scheme, the Society was quite willing to sink this completely, if the Commission that it asked for chose another one, even though the scheme so laid down fell short of the Society's ideal.

Subsequently Miss L. Walsh, Honeywell Road School, Battersea spoke, and there was an interesting demonstration by children from this school ; Miss Parker and Miss Renwick showing how the little pupils were taught to read with the Simplified Spelling, and how easily the transition to the ordinary spelling was made. Miss Thompson, Lyons Council School, Durham, and Miss McConnochie, Clepington Road School, Dundee (who have both successfully experimented with Simplified Spelling) followed, and Mr. A. P. Graves told several amusing stories illustrating some results of our present spelling. One was as follows :—A provincial policeman, in the course of his nightly beat in Nebuchadnezzar Street—which leads into High Street—chanced upon a dead horse, and, later, at the station set about writing a report of his discovery. But he must needs spell “Nebuchadnezzar.” As he wrestled, wrote and erased a Sergeant came in. “How do you spell Nebuchadnezzar ?” “Nebuchadnezzar,” repeated the Sergeant, “N-e-b-u-” A pause. “N-e-b-u-l-” Here, don’t bother me ; do your own work. “Robert returned to the problem in vain. Eventually he started to his feet, flung off his coat, turned up his sleeves and made for the door. “Hi ! Where are you off to in that get-up ?” “I’m going out,” was the reply, “to drag that blooming horse into High Street.”

Mr. Mohammed Sadiq spoke of the importance of English spelling reform to the natives of India, and a general discussion followed.

THE NEWS OF THE MONTH.

BENGAL.

THE Report of the Calcutta University Commission is said to be nearly ready and to be very voluminous. The Commission are said to have secondary education in their report so as to produce a comprehensive, well-balanced scheme of education.

A note on education in India has been issued for the benefit of the Calcutta University Commission by Sir John Woodruffe, a Judge of the Calcutta High Court. He demands a complete reversal of educational policy in India : asserts that the present system of imposing western culture on India only results in destroying instead of harmonising and supplementing Indian culture, destroying the Indian's love of his own literature and arts, his repose in his traditional and national religion, his content with his own social customs and domestic habits. Wrong education such as this produces physical and mental strain and sapping of moral strength, leads to an instability which causes sometimes violence, sometimes a paralysing inner conflict or a sense of oppression and, in inferior natures, imitation and automatisms. We should recognise the

strength, persistence and value of the Indian civilisation as proving that it is the best for the people whose forefathers have evolved it and give to the languages, history, literature, art, philosophy, religion, and ideals of India the primary place in prescribed courses of study.

"It follows from the above views that in my opinion education should be such as a true and not a denationalised Indian would desire to see given and would himself, if an educator, give. Such an education can only be properly given by an Indian, able in his subject and inspired by great ideals, who has not been denationalised under the English system of education which has hitherto prevailed. The class here excepted may be less competent to teach than the English original of which they are a copy. All intriguers for posts of teachers and professors should be rigorously suppressed. As a result of this it follows that distinctions in the educational service should be abolished and Indians should be employed in every case except those in which the expert knowledge of an European (and not necessarily an Englishman) justifies his appointment. The educational curriculum should give Indian culture and the Indian standpoint the primary place. Art should be recognised and not, as it is now, ignored by the University. India being an agricultural country there should be courses of agriculture, professorships and travelling agricultural lectureship. Law is at present too much encouraged. All the public opinion with which I am acquainted made from a study of the archaeological is against the further multiplication of lawyers. Teaching should be in the vernacular as much as possible. Students are greatly strained by having to learn in a foreign tongue. The University should be as free of Government interference and have as much independence of action as is possible. There should certainly be a large degree of freedom of teaching and study. In short I would claim for the University every freedom to follow those ideals which the past history of India, and its past and present Indian culture, present to it."

BOMBAY.

By the sudden death from heart failure of Mr. H. G. Limaye, Professor of History, not only the Fergusson College, Poona, but the University and higher education in this Presidency generally have suffered a heavy loss. "Since he became a member of the Senate of the University some years ago, his talent for clear and lucid speech, broad views, and sober judgment has won increasing recognition at the hands of his colleagues. In the Board of Studies for History and Economics, Professor Limaye's influence made itself felt in many ways. He was deeply interested in introducing an element of research in the study of History in the University, and his endeavours have already borne fruit to some extent. Professor Limaye strongly advocated a larger recognition of the vernaculars in the curricula of the higher examinations, and his proposals in this regard are now before the University. The most tragic circumstances about Professor Limaye's death is that he was to have been the Principal of the College which the Deccan Education Society has resolved to establish in Salsette. He was most deeply interested in the project and it was his desire that the College should be named after the late Mr. Gokhale."

Stimulated by the Deccan Education Society's proposal to found a College at Salsette, Mr. S. E. Kadiri appeals in the *Times of India* to

Mahomedans to galvanise into life the proposal to establish an Islamia College in Salsette. The Deccan Society, he says, has devised a scheme for building a College and hostel for 500 students with a capital of Rs. 20 lakhs, the work to commence when Rs. 5 lakhs are collected; a site has actually been selected. He urges that Sir Mohammed Yusuf's donation in 1914 of Rs. 8 lakhs, combined with other funds available in the hands of the Advocate-General, shall at once be utilised to establish the Islamia College. There are, he claims, two urgent reasons, first, that there is no provision in Bombay of an up-to-date Hostel for Muslim students: secondly that none of the Mahomedan *elite* come forward to help the students. The Muslim students are from the poor and middle classes of the Mahomedan community. He calls on the Mahomedan members of Council to move resolutions to this effect in the Legislative Council. He does not however make it clear whether he desires the Islamia College to be a separate institution or whether he would welcome a combination of the two schemes for the institution of a general college with special facilities for Mahomedans.

Besides the above two schemes, proposals are before the Syndicate for the establishment of a new college at Sangli under the management of the Deccan Education Society and another at Dharwar to be conducted by the Karnatak Education Society. The former scheme seems likely to go forward. The Committee appointed by Government to consider the need and means of enlarging accommodation in Government Colleges has completed its report, which it is to be hoped, may lead to the formulation of some definite policy of university expansion.

The primary teachers of Bombay have addressed a memorial to the Bombay School's Committee pointing out that present grades of pay were sanctioned many years ago and have not been raised to correspond with the rise in prices. Rent has risen during the last five years, they say, from Rs. 8 to Rs. 15, rice from Rs. 5 to Rs. 9½, cloth from Rs. 2½ to Rs. 7, messing from Rs. 8 to Rs. 15. They ask for the following rates.—

Class.	On Joining.	After 3 years.	Concluding years. of service.
Untrained	30	35	40
Trained—1st Year.....	35	42	60
" 2nd "	40	50	80
" 3rd "	45	60	100

At a meeting of past and present students of the Deccan College it was resolved to present to the Principal, Mr. F. W. Bain, C.I.E., on his retirement, an address and a casket and to collect funds to raise a suitable memorial.

Professor Turnbull said that the Deccan College had in the past had more than one distinguished Principal—Sir Edwin Arnold, Dr. Wordsworth, Dr. Selby—and at least one of them had won wide fame in the outside world. Principal Bain was on the way to win as wide fame as Sir Edwin Arnold, if, indeed, he had not won it already. He combined in a most unusual way the professor and the artist, and but for him a certain side of ancient Indian literature would have remained a sealed book to Western readers for a long time. Professor R. D. Karmarkar,

of New Poona College, said that in his opinion the great thing about Principal Bain was the sturdy independence, both in thought and in life, which he taught and practised.

The annual tournament of the Girls' High Schools Athletic Association in Bombay showed a distinct advance in the physical training given in girls schools: drill on some recognised or approved system is a leading feature of instruction in most schools, and in many organised games such as Net-ball are played. The chief difficulty is lack of playgrounds. Girls do not and will not make use of public *maidans*. Few girls' schools have any playground. The Y. W. C. A. lends its tennis court. But so far all efforts have failed to secure permanently for the physical training of girls a plot in a convenient and retired place which could be used in common by the schools. This is one of the most urgent educational needs of Bombay.

DELHI.

At the All-India Ayurvedic Conference, Pandit Madan Mohan Malaviya announced that he contemplated utilising the one lakh of rupees received from a Marwari gentleman in Calcutta for the establishment of an Ayurvedic College and Ayurvedic Botanical Garden under the auspices of the Hindu University. The Conference passed resolutions calling on all Ayurvedic Colleges in India to adopt the syllabus laid down by their All-India Education Department.

MYSORE.

The Inspector-General of Education reported that as a protest against admission of three Halepyka boys to the Anglo-Vernacular School at Sringeri, the parents of the other boys withdrew their children from the school and started a new National Anglo-Vernacular School, and he requested instructions regarding the policy to be adopted in the admission of students of the depressed classes to public schools. The Government, in reply, say they cannot uphold the view that any one shall be excluded from public schools on the ground of caste, as schools maintained from the public revenues are intended for benefit of all classes of the people in the State, in the same way as railways, hospitals, courts of law and other public institutions. The unreasonable social prejudices, in such matters have been wearing away with the spread of enlightenment in advanced communities and rise in standards of social life of the depressed classes. The Government are gratified to note that in certain parts of the State, students of these classes were freely admitted to schools, and in some of them allowed to mix freely with students of other castes. Any retrograde step calculated to revive the dying opposition to the legitimate rights of all castes to enjoy the benefits of such public institutions is to be deprecated. The spirit of intolerance displayed by certain classes of the people at Sringeri in setting up an agitation against the admission of Halepyka students, therefore, deserves no sympathy. Whenever a school is opened as a protest against the admission of the pupils of any community in public schools, the promoters of such movements should be given clearly to understand that the institutions concerned will not be entitled to any grants-in-aid or other concessions from Government, but recognition should not be withheld unless the prescribed standards have not been satisfied. The National Anglo-Vernacular School, Sringeri, will not be entitled to any grant-in-aid, as it was opened without the previous sanction of the Inspector-General of Education.

PUNJAB.

The Punjab Government has put forth a new scheme for the reorganisation of industrial schools. It enumerates ten causes for the failure of the present schools, including inadequate inspection, ill-qualified and poorly paid staff, headmasters with no practical knowledge of industrial conditions, imperfect control owing to dual inspection by industrial and educational agencies, inadequate equipment and insufficient grants. Above all is the lack of a definite conception of the function of an industrial school and of a policy based on it; attempts have been made to train craftsmen without any preliminary manual education; a standard of general education has been demanded in advance of the requirements of practical artisans and out of relation to their work.

The new scheme now to be introduced will, it is hoped, succeed in removing these defects. The schools will as at present be of two classes, primary and middle, but a clearer distinction than in the past will be made between their respective functions. The courses of the Primary Schools are designed to give "the boy general ability with the pencil, the measure and the tools used in modelling wood and metal work in their elementary stages and do not attempt the specialised training necessary to the making of a craftsman." They have been designed to suit the children both of artisans and non-artisans, and since it is recognised that the former will sometimes be required by their parents to learn an hereditary craft at home, the work of the schools is divided into two sessions. The first will be devoted to manual training alone and the second to general subjects and drawing, and it will not be necessary, though it may be desirable, that a pupil should attend both. The son of an artisan who has private opportunities of acquiring manual dexterity may continue his work at home, and yet obtain the theoretical knowledge without which he is unlikely to rise high in his craft;

A more advanced course will be provided by the Middle Schools. In these the aim will be to give a thorough grounding in construction and finish and in the making and interpretation of scale drawings, with instruction in the uses and composition of materials. The course will extend over three years and while fitting the pupil to compete on equal terms with boys trained in the bazaar will equip him with better technical knowledge. The third stage of training will consist of instruction in the use of machine tools, and in the more advanced work necessary in metal turning, fitter's work and higher class cabinet work. For this special institutions will have to be established, and a beginning has been made in the foundation of a school of carpentry at Jullundur. It is proposed that each school should have a committee of not more than six members vested with powers of management and required to visit the institution periodically and to see that action is taken on the suggestions of the Inspector, while bringing to his notice appropriate means of improvement. It is proposed to modify the existing system under which grants-in-aid are made and to make the criterion the general efficiency of the management, the staff and equipment, the Inspector being empowered on his own authority to reduce a grant by 25 per cent. At the outset the most serious difficulty in the way of progress is likely to be the lack of trained teachers with an acquaintance of industrial conditions.

REVIEWS OF BOOKS.

THE SCHOOL-BOY LEAGUE OF HONOUR.

*By R. A. B. Chapman, A. G. Dix and Rao Sahib Sheoram
Ganesh Katarni.*

OXFORD UNIVERSITY PRESS, BOMBAY. Rs. 1. Pp. 131.

THE School-boy League of Honour is an organisation working on lines similar to those of the Boy Scout movement but adapted to the conditions of India and aiming at supplying 'a definite preparation' for the Boy Scout system. The League was established in 1914 by Mr. R. B. Chapman, I.C.S., Deputy Commissioner, Yeotmal, Berar. In 1915 its principles and organisation were recognised and approved by the Chief Commissioner of the Central Provinces, the movement at first made little headway outside Berar, but in June, 1918, the Administration of the Central Provinces in a Resolution endorsed the value and the need of the League and its principles, took general control of the movement by making the sanction of Mr. Chapman as League Commissioner necessary for the formation of troops, and declared the Circle Inspector of schools working with the Deputy Commissioner and other Educational Officers responsible for the extension and organisation of the movement. The Education Department supplies to League Committees literature, stationery, prizes, postage charges. Other charges are met by subscription and the enrolment fee of Rs. one for all members. Organisation is by District League Committees with headquarters in the District High School, whose headmaster is Secretary.

The League is welcomed and encouraged by the authorities of the Boy Scout Association in India and has taken from it the League's badge of Fleur-de-Lys. Its aim is to inculcate by similar but not identical methods the ideals of the Boy Scout Law, honour, chivalry, self-sacrifice, service of others, duty to God, country and properly constituted authority. The League does not set up a rival organisation but rather one leading up to the Boy Scout Standard. It is intended for boys over eleven years of age, encourages manly games, hobbies and all occupations and public duties that have educative value by developing self-help, individual hardihood, activity observation, common sense, adaptability. No regular dress is prescribed for the League members beyond what is serviceable for games and the work required, but badges and troop names are employed, and full Boy Scout kit is worn by those who have qualified to be League Scouts. The training of League Instructors and Scoutmasters is to be a regular part of the course at Government Normal schools. It is estimated that Rs. 600 is necessary to start a District branch of the League.

The manual whose name appears above contains all the rules of the League and full information and instructions how to join. It also expounds the principles of the League in brief and brightly written essays and supplies a quantity of useful information for Scouts and Scoutmasters in the arts and hobbies which members are to learn and practice. All who are interested in the Boy-Scout movement in India should obtain the manual which, so far as we know, is the only record in print of the application of the principles to this country. It does not appear that schools in other Provinces are eligible for admission

to the Central Provinces League of Honour. But what is done in the Central Provinces will be a useful model for others, and if there were a real interest in the movement in the Presidency it should not be difficult to start a similar League with equal assistance from Government, and perhaps to link it up, with the Leagues in other Provinces.

THE SILKEN TASSEL. *Poems by Ardeshir F. Khabardar.*

(THEOSOPHICAL PUBLISHING HOUSE, MADRAS. Rs. 2-8. Pp. 119).

MR. Khabardar has a mastery of the technique of verse very unusual in an Indian writing poems in English, and a command of the English language which does not very often fail him. He has also a genuine sense of the poetic, an obvious capacity to feel the beauty and passion of life and a yearning for joys other than earthly. But his thought is sometimes half-lost in a mist of words and images and some poems produce a feeling of cloying sweetness and lack of restraint. Nevertheless he is clearly not merely an apt student of English poetry but a poet with a natural gift for melodious expression of delicate feeling.

DICKENS. DAVID COPPERFIELD.

Edited and Abridged by H. A. Treble.

(MACMILLAN & Co. 1s. 3d. Pp. 136.)

ANOTHER of the 'English Literature for Secondary Schools Series.' Abridgement is effected by omission of descriptive or reflective passages unnecessary to the story and of chapters or parts of chapters for which brief summaries in italics are substituted in the text. The condensation of the story appears to be well-done. A few notes, questions and exercises follow: four of the illustrations by 'Phiz' are included.

OVAL AND WRITTEN EXERCISES IN ENGLISH COMPOSITION,
PRIMARY AND JUNIOR BOOKS.

By Robert S. Wood.

(MACMILLAN & Co. 6d. and 7d. Pp. 48 and 64.)

EACH lesson is in four parts, a short narrative for transcription and punctuation at home, dictation in class; exercises on the parts of speech based on this passage; exercises on pitfalls in spelling; exercises in composition, consisting of description of familiar objects and experiences from material suggested and prepared before. Designed for English children the books require little adaptation for Indian pupils. The material is excellent and even if the book were not used by the class it would suggest to the inexperienced teacher a great variety of types of question and methods of instruction.

THE PUPILS CLASS-BOOK OF ENGLISH COMPOSITION.

BOOK I FOR CHILDREN OF 9 TO 10.

Edited by J. S. Lay.

(MACMILLAN & Co. 1s. 6d. Pp. 112.)

THE method of this book is unusual. The writer addresses his pupil as if he were describing the method by which, when a boy, he was

taught composition, and prescribes for him similar exercises. These include letter writing, the parts of speech, sentence construction, reading of select passages, story telling, etc. The object is to teach pupils to do more for themselves. The material is good, selected mainly from children's prose and poetry of established repute. The method however strikes us as roundabout. We don't think that "the proper way for a mother and father to write to their little boy is to call him 'Son'," 'My dear Son,' or for envelopes to be addressed 'Mr.'

ELEMENTARY LATIN ELEGIAC VERSE COMPOSITION.
LATIN ELEGIAC VERSE COMPOSITION.

By Roy Meldrum.

(RIVINGTONS. 2s. 6d. AND 5s.).

IF there be any school in India that teaches Latin verse composition it will find these two books provide a good introduction. The first contains the rules of prosody and a series of exercises designed to make a boy rely on what he has himself learnt and read in Ovid and on the use of his wits in applying it. The second consists of parallel passages from Ovid and various English poets for repetition and versification, the idea being that through repetition will be assimilated the materials for original versification. This method of teaching verse is the reverse of mechanical.

WHAT IS WAR? *By Hettie Broadbent Cowan.*

(CURSOR PUBLISHING Co. 9d. Pp. 38).

THREE short essays, the first arguing that war is right or wrong according to its causes or aims, and may be the only means to save spiritual welfare. The second defines freedom: the third maintains that right is might. The treatment is slight but the point of view sound.

FISHERS OF MEN. *By the Rev. B. C. Sircar.*

(CHRISTIAN LITERATURE SOCIETY. As. 4. Pp. 63.)

THIS aims at promoting personal work in the evangelisation of Christians and non-Christians by showing the need, opportunity and resources, describing the meaning method and equipment and illustrating the process from the Gospel narrative of Christ's conversion of Peter, Zacchaeus and others. The principle is that it is not theological dogma but only the influence of personality and fervid faith that are required to revive the successes of Wesley, Moody and others.

A NOBLE INDIAN IDEAL.

(CHRISTIAN LITERATURE SOCIETY. 6 pies. Pp. 8.)

A PAMPHLET showing that Christianity makes possible in modern conditions the Indian theory of the four *asvamas* as a preparation in earthly life for eternity.

HOW THE DEATH OF CHRIST DIFFERS FROM THE DEATH
OF PROPHETS, PATRIOTS AND MARTYRS.

By Rev. J. I. Lucas.

(CHRISTIAN LITERATURE SOCIETY. 9 pies.)

A sermon, which we cannot review.

SADHU SUNDAR SINGH. CALLED OF GOD.

By Mrs. Arthur Parker.

(CHRISTIAN LITERATURE SOCIETY. AS. 10. Pp. 90.)

A SKETCH of the conversion of a Sikh of high birth to Christianity and of his successful evangelising work as a Sadhu travelling throughout India.

OUR CONTEMPORARIES.

THE Chicago *School Review* in an article, "What Girls Want to Know," summarises the result of enquiries made with reference to the teaching of hygiene to high-school pupils in New York State. A new law of 1917 ordered fifteen minutes instruction in hygiene per week for all pupils. Previously instruction in hygiene was given through the biology department: for the first year schools were left by the new law to arrange their own course with a view to a unified plan later on. With a view to this the girls in a certain school were asked which of the topics of hygiene studied in the term they thought most important and what other topics of value they could suggest. Answers were unsigned and therefore frankly given. Many had no ideas beyond what they had been told: others complained they were taught what they already knew. Some obviously selected as most important the topics on which the instruction given was the most detailed and most directly associated with personal appearance—not merely from vanity but also from the sense of the importance of good presentation in applying for a business position or in dealing with people in business and from a desire of personal comfort. Of 404 suggestions 85 asked for instruction in matters pertaining to sex and 29 others obviously had this in view. The reasons given pointed a feeling of need particularly urgent in the conditions of war time. "I submit that it would be eminently unwise to ignore the articulate wishes of these young women and of the millions like them on the way to womanhood and motherhood. And what the girls want to know is very much like what the boys want to know. If we do not teach them, others will."

From the same:—A bill was introduced into the United States Senate on October 10 by Senator Hoke Smith, of Georgia, providing for a Department of Education in the federal Government and appropriating, in addition to expense funds for such a department, the sum of one hundred million dollars for federal support of various types of education. This sum is to be apportioned to the following purposes in the following fractions: three-fortieths to combating illiteracy, three-fortieths to Americanizing immigrants, one half to the improvement of public schools of less than college grade, two-tenths for the promotion of physical and health education and recreation and three-twentieths for the training of teachers. Each State is to share according to its needs and willingness to contribute from its own treasury new funds for development of schools. The bill will meet the theoretical objection of those who do not believe in federal participation in education. It will get the support of all who see the importance of a democratic education of national scope. Today the states are provincial and many are so far behind that a federal agency must be created, to cope with problems of education from a national standpoint and to throw off this narrow provincialism.

From *The Modern Review* (February), an article on "Child Labor in India," by Prof. H. A. Hanson :—The gist of the Indian Factories Act, which came into force in 1912, is this : "that children between nine and fourteen may work seven hours in a factory or only six in a textile factory. If they are fourteen or over they may work up to 11 hours if they are females and any number if hours if they are males. The other provisions are concerned with safeguarding the workers and enforcing these provisions. As a matter of practice the hours in the factories are generally twelve a day, so the plan is to have two shifts of half-timers, that is children under fourteen." After describing the evasions of the Act that are current, the writer dwells on the physical mental and moral abuses that result :—"And the mental effects are equally sure and bad. The Bombay Government Resolution on the managing of factories says (Dec. 1917) that only 17 p. c. of the mill children are receiving *any kind* of education. The Bombay factory inspector's report already cited, says :

"The education of factory children cannot be said to be satisfactory. On the 30th March out of 3,090 children employed in Bombay only 532 were receiving instruction."

This confirms the above percentage. Here is an extract from the weekly newspaper "India" published in London. On p. 175, Nov. 3, 1916, it says :—

"The Government in their review of the report state last year : "It is apparent from the precarious condition of the few existing schools that no measures for the spread of education among factory children can be successful unless supported by the active and vigorous co-operation of the mill-owners in the direction of ensuring regular attendance at the schools. Such co-operation is, however, difficult to secure since with the mills competing against each other to obtain a sufficient supply of child labour, it is directly against the immediate interest of the mill-owner to apply any form of pressure on his juvenile employees with the object of making them attend school. This being so it is extremely unwise to defer the adoption of the only remedy that is called for in the hope 'that (these are the words of Government) in the course of time the mill-owners will come to realise the importance, in the interest of industrial development, of the formation of a literate factory population on which to draw in order to meet their requirements in the shape of skilled labour, and will agree to concerted action with that end in view.' "

The committee appointed by the Government of Bombay in 1913 to make a thorough investigation gave it as their opinion that even if it were not possible to provide for general compulsory education it must be adopted at least for factory children. It is very evident that this is urged not only in the hope of giving the children mental training but to make it harder to work them over-time and under improper conditions, to 'sweat' them, in other words. But it is clear that there cannot be a proper mental development when little children have to spend long hours which drain their physical energy. Education is through the senses. It must be perfectly evident that sleepy eyes, ears that are humming from the din of machinery, hand and body that are weakened and with the sense of touch blunted, cannot serve the soul in its search after the good, the beautiful and the true, as they ought.

And then look at the more distinctly moral effect of it all. The little ones are every day engaged in living out lies. They are taught to lie about

their ages, hours of employment, etc. But more than this, *vice* and shame always flourish under conditions of child-labour."

In a letter to the *Times Educational Supplement* of January 16 on the language difficulty in Indian Education, Mr. H. R. James says, "I have ventured to suggest that in India for special reasons, historical and practical, English is the vernacular of higher education. If that were admitted the opposition between English and the vernacular as the medium of instruction would disappear and we should have a problem of a different kind, but a problem also familiar and well understood—the problem of bilingualism. . . . To be consistent, what the courageous critic of the existing system should say is that in every Indian university, not to speak of schools, the teaching should be carried on in the mother tongue. But this, if we know anything of India, we know to be impossible, except very partially. The ideal could, perhaps, be more nearly attained by Calcutta University for Bengal than for other provinces by any other university; but for Calcutta it would be at the sacrifice of that cosmopolitan character which at the present time is Calcutta's high distinction. If we suppose all teaching in Calcutta University to take place in Bengali, Bengali students do indeed gain substantially; but the students whose mother tongue is not Bengali, a fairly numerous minority, lose. Possibly on the principle of the interest of the greater number the change ought to be made; but, at all events, it would be at a price. And the loss to, possibly the loss of, non-Bengali students would not be the whole of the loss, nor indeed the chief part of it. Imperfect as are achievements in English, some increase in the mastery of the language must accrue to the student through all the hearing and all the writing that comes to him in the ordinary work of degree courses under present conditions. The trouble is that the mastery ought to be so very much greater, and is not. . . . Hence his advocacy of insistence on an adequate test in English at the portals of the university and his stern inflexibility in holding to such limits of numbers as this (to him) primary condition of fitness entails.

Already there seems to be reason enough to pause before coming over to the view that the fundamental error in modern education in India has been the adoption of English so largely as the medium of instruction. But even so, we have not reached the chief, and, I think, the decisive, reason for upholding—in the main—the present place of English in higher education in India. It is English, English as taught in the schools, as adopted for university teaching, as spoken in the town hall and the council chamber, as written in newspapers and pamphlets, as used for literary and political purposes generally—English and English only, which unifies modern India. Much has been made of the geographical and of the spiritual unity of India, and claims may be ventilated, with but shadowy historical basis, for some former political unity of India. These are illusory. The only real unity is that which British administration has given to India in the past, and which English political ideas, through the medium of English education, may give to India in the future. Since the definite orientation of policy announced on August 20, 1917, this has been more than manifest. The political future of India may most truly be said to depend on the unification of which the English language is both the expression and the bond. Desirable as it might be on grounds purely educational to displace English by the vernaculars in

higher education drastically, it would be hazardous for all, in view of the indispensable need for community of political thought and political aims which the years immediately ahead of us will bring. There will be more need than ever for the bond of unity which the common use of English for higher education gives.....

I have acknowledged the handicap for the Indian student to be great, but I do not think it should be as fatal to true education as Mr. Anderson surmises. It would not be if English could become, as it needs to become, a second mother tongue for the student of the new learning. In the Report recently published here by the Committee on modern language teaching two points impressed me in this connexion. While holding well-balanced views on the utility of the direct method of language study, the Committee insist plainly that in the acquisition of a modern language the teaching should be conducted in the language to be acquired. In accordance with this principle we are, at all events, right in conducting our teaching of English in India through the medium of English. Whether we can possibly be right educationally in teaching other subjects through English will depend upon whether my paradox in classing English among Indian vernaculars contains any considerable element of truth. But I do find also the Committee saying in their report that natural bilingualism is found in (South Wales, for example) not a hindrance, but an aid to intelligence, and even that it tends to make the acquirement of other languages easier. If this be so, we need not be extreme in deploring as a calamity and an injustice the place held by English in Indian education. That there is a difference between natural bilingualism and artificial I readily allow. But if the entrance of the Indian student upon a course of modern studies involves (as I think it does) a kind of spiritual re-birth, and if English then becomes to him a second mother tongue, the resultant bilingualism, along with obvious disadvantages, may carry with it some concomitant advantage."

GOVERNMENT NOTIFICATIONS.

PERMANENT NOTIFICATION.

No. 3197 OF 1902-03.

POONA : OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
6th March, 1903.

INDIAN EDUCATION.

THE Educational Department is not responsible for anything which may appear in this publication, unless over official signature.

F. G. SELBY,
Director of Public Instruction.

APPOINTMENTS, ETC., MADE BY GOVERNMENT.

18th January, 1919.—Mr. M. Hesketh, Educational Inspector, Central Division, is granted, with effect from 31st December, 1918, or the subsequent date on which he may avail himself of it, privilege leave for three months in combination with furlough for the same period,

20th January, 1919.—Mr. R. S. Cree Brown, Professor of Mechanical Engineering, College of Engineering, Poona, is granted furlough from 9th June, 1919, to 29th February, 1920, with permission to prefix the summer vacation of the College to the leave.

21st January, 1919.—Dr. Vinayak Sakharām Ghate, D. Litt., Professor of Sanskrit, Elphinstone College, Bombay, has been granted leave on medical certificate for three months and twenty-four days, with effect from the 14th November, 1918, with permission to affix to it the summer vacation which commences on the 10th March, 1919.

His Excellency the Governor in Council is pleased to appoint Dr. Pheroze-shah Nassarwanji Daruwala, LL D. (Lond), Barrister-at-Law, to be Professor of Law, Government Law School, Bombay, till 1st June, 1919, *vice* Mr. H. Campbell, Barrister-at-Law, resigned.

25th January, 1919.—His Excellency the Governor in Council is pleased to appoint Mr. F. W. Marrs, on return from Military duty, to be Educational Inspector, Central Division, *vice* Mr. M. Hesketh, pending further orders.

28th January, 1919.—Dr. C. J. J. Fox, B.Sc., (London), Ph. D., Professor of Chemistry, College of Engineering, Poona, is granted furlough for nine months from 10th June, 1919, to 9th March, 1920.

Mr. M. Hesketh, on relief by Mr. F. W. Marrs, acted as Educational Inspector, Southern Division, from 3rd to 11th January, 1919, both days inclusive, *vice* Mr. Krishnaji Shrinivas Hungund.

APPOINTMENTS MADE BY THE DIRECTOR OF PUBLIC INSTRUCTION.

10th January, 1919.—The transfer of Mr. G. C. Dike, B.A., Assistant Deputy Educational Inspector, Thana, on Rs. 100 to Satara, is cancelled.

11th January, 1919.—Mr. G. K. Tilak, B.A., *sub-pro tem*. Assistant on Rs. 50, in the Sholapur High School, is with effect from 1st February, 1919, made Probationary Assistant on Rs. 50, in the same High School.

21st January, 1919.—The following appointments, etc., are made, with effect from 1st February, 1919, on account of the retirement of Mr. H. K. Halbe, Assistant on Rs. 80, in the Belgaum High School :—

Mr. A. M. Shaikh, Head Master, on Rs. 75, in the Mahalaxmi Training College for Women, Ahmedabad, is promoted to Rs. 80.

Mr. N. V. Apte, Assistant on Rs. 70, in the Training College for Men, Poona, is promoted to Rs. 75.

Mr. B. S. Purohit, B.A., Assistant on Rs. 65, and Acting on Rs. 70, in the Training College for Men, Dharwar, is promoted to Rs. 70.

Mr. B. S. Karajgi, B.A., Assistant on Rs. 60, and Acting on Rs. 65, in the Bijapur High School, is promoted to Rs. 65.

Mr. V. K. Bakshi, B.A., Assistant on Rs. 55, and *sub-pro tem* on Rs. 60, in the Elphinstone High School (G. S.), Bombay, is promoted to Rs. 60.

Mr. S. G. Joshipura, B.A., Probationary Assistant on Rs. 50, and Acting on Rs. 55, in the Surat Middle School, is promoted to Rs. 55.

22nd January, 1919.—The following appointments, etc., are made with effect from 1st February, 1919 :—

Mr. M. A. Buch, B.A., Acting Assistant on Rs. 50, in the Elphinstone Middle School (G. S.), Bombay, (*vice* Mr. K. V. Dave, on deputation to Ahmedabad Middle School), to be Probationary Assistant on Rs. 50, in the same school where a grade of Rs. 50 is vacant.

Mr. M. N. Mehta, B.A., Acting Assistant on Rs. 50, in the Broach High School, (*vice* Mr. U. K. Aga, on deputation to Military Department), to be Probationary Assistant on Rs. 50, in the same school where a grade of Rs. 50 is vacant.

Mr. J. K. Desai, B.A., Acting Assistant on Rs. 50, in the Surat Middle School, (*vice* Mr. S. C. Yajnik, on deputation to the Ahmedabad Middle School), to be Probationary Assistant on Rs. 50 in the same school.

Mr. R. N. Ramchandani, B.A., *sub-pro tem* Assistant on Rs. 55, in the Shikarpur High School, to be Probationary Assistant on Rs. 50, in the Karachi High School (where a grade of Rs. 50 is vacant) but to continue in his present appointment.

Mr. L. P. Mirchandani, B.Sc., *sub-pro tem* Assistant on Rs. 55, in the Training College for Men, Hyderabad, to be Probationary Assistant on Rs. 50, in the same College (where a grade of Rs. 50 is vacant) but to continue in his present appointment.

The following men are made Probationary Assistants on Rs. 50 per mensem each, in the same institutions in which they are respectively serving at present, with effect from 1st February, 1919.

Mr. G. D. Gandhi, B A., Acting Assistant on Rs. 50, in the Elphinstone High School (G. S.), Bombay, (in the vacant grade of Rs. 50).

Mr. J. P. Panthaky, B.A., *sub-protem* Assistant on Rs. 50, in the Elphinstone High School, (G. S.), Bombay, (in the vacant grade of Rs. 50).

Mr. S. M. Vakilna, B A., *sub-protem* Assistant on Rs. 50, in the Broach High School (in the vacant grade of Rs. 50).

Mr. C. N. Desai, B A., Acting Assistant on Rs. 50, in the Godhra High School (in the vacant grade of Rs. 50).

23rd January, 1919.—Mr. T. V. Mahajani, Acting Assistant on Rs. 50, in the Poona High School, is, with effect from 1st January, 1919, made Probationary Assistant on Rs. 50, in the Jalgaon High School (where a grade of Rs. 50, is vacant), but should continue in his present appointment in the Poona High School.

25th January, 1919.—The following appointments, etc., are made, with effect from 1st February, 1919 :—

Mr. D. D. Marathe, B A., Probationary Assistant on Rs. 50, in the Dharwar High School, and Acting Assistant on Rs. 50, in the Belgaum High School, *vice* Mr. G. L. Phadnis, in the Registration Department, to be Probationary Assistant on Rs. 50, in the Belgaum High School.

Mr. M. H. Desai, B A., Probationary Assistant on Rs. 50, and *sub-pro tem* on Rs. 55, in the Broach High School, is promoted to Rs. 55.

Mr. K. V. Dave, B A., Probationary Assistant on Rs. 50 and Acting on Rs. 55, in the Elphinstone Middle School (G. S.), Bombay, but doing duty in the Ahmedabad Middle School, *vice* Mr. N. A. Kadri, on deputation to the Secondary Training College, Bombay, to be Probationary Assistant on Rs. 50, and Acting on Rs. 55, in the Ahmedabad Middle School in the place of Mr. M. D. Shah, deceased.

The following transfers are made, with effect from 1st March, 1919 :—

Mr. V. V. Apte, Sanskrit Shastri, in the Bijapur High School, is transferred to the Ratnagiri High School.

Mr. V. N. Shivangi, Sanskrit Shastri, in the Belgaum High School, is transferred to the Bijapur High School.

Mr. K. B. Joshi, Sanskrit Shastri, in the Sholapur High School, is transferred to the Belgaum High School.

Mr. C. G. Ambrekar, Sanskrit Shastri, in the Ratnagiri High School, is transferred to the Sholapur High School.

27th January, 1919.—The following appointments, etc., are made, with effect from 1st March, 1919 :—

Mr. T. N. Phatak, Gymnastic Teacher, in the Sholapur High School, is transferred to the Training College for Men, Poona.

Mr. G. K. Shinde, Gymnastic Teacher, in the Jalgaon High School, is transferred to the Sholapur High School.

Mr. S. P. Purandare, Probationary Gymnastic Teacher, in the Thana High School, is transferred to the Jalgaon High School.

Mr. P. R. Yeola, Probationary Gymnastic Teacher, in the Training College for Men, Poona, is transferred to the Thana High School.

28th January, 1919.—In modification of this office Notification No. 12962 of 21st January, 1919, Mr. M. A. H. A. Munshi, Special Mahomedan Deputy Educational Inspector for Urdu Schools, Southern Division, on Rs. 200 per mensem, is appointed substantive *pro-tem* on Rs. 250 per mensem, with effect from 19th December, 1919, during the deputation of Shaikh Bakarali Amerali, Special Mahomedan Deputy Educational Inspector for Urdu Schools, Central Division, on Rs. 250 per mensem, as temporary Personal Assistant to the Educational Inspector, Central Division, on Rs. 250 per mensem.

31st January, 1919.—The following appointments, etc., are made, with effect from 1st February, 1919 :—

The lien of Mr. N. G. Gadgil, M A., Assistant Deputy Educational Inspector, East Khandesh, on Rs. 80, is transferred to Sholapur, Mr. Gadgil, is on deputation as Temporary Head Master of the Government Training Class at Satara.

Mr. K. V. Phata, Probationary Assistant Deputy Educational Inspector, Sholapur, on Rs. 75, and Acting on Rs. 80, but doing duty at East Khandesh, *vice* Mr. N. G. Gadgil, to be Probationary Assistant Deputy Educational Inspector, East Khandesh, on Rs. 75, and Acting on Rs. 80, *vice* Mr. Gadgil.

The lien of Mr. A. H. Kher, B A., Assistant Deputy Educational Inspector, Bombay, on Rs. 150, is transferred to Thana.

Mr. V. S. Toro, B A., Assistant Deputy Educational Inspector, West Khandesh, on Rs. 100, but doing duty at Bombay, *vice* Mr. A. H. Kher, to be Assistant Deputy Educational Inspector, Bombay, on Rs. 100, Mr. Toro to continue on special duty under the Publicity Department of the War Purposes Board, Bombay.

Mr. T. D. Chandorkar, B.A., Assistant on Rs. 75 in the Dhulia High School, and Acting Assistant Deputy Educational Inspector, West Khandesh, on Rs. 75, *vice* Mr. Toro, to be Probationary Assistant Deputy Educational Inspector, West Khandesh on Rs. 75 (of Mr. P. H. Joshi), *vice* Mr. Toro.

3rd February, 1919.—The following appointments, etc., are made, with effect from 1st February, 1919 :—

Mr. C. C. Mehta, B.A., Assistant on Rs. 65, in the Surat Middle School, having been lent to the Ankleshwar Municipality, his lien is suspended.

Mr. B. M. Shah, B.A., Assistant on Rs. 60, and Acting on Rs. 65 in the Training College for Women Ahmedabad, is confirmed on Rs. 65.

Mr. V. C. Limaye, B.A., Assistant on Rs. 55, and *sub-pro tem* on Rs. 60 in the Bijapur High School, is confirmed on Rs. 60.

Mr. V. S. Tirodkar, B.A., Probationary Assistant on Rs. 50, and *sub-pro tem* on Rs. 55 in the Belgaum High School, is promoted to Rs. 55.

4th February, 1919.—The following appointments, etc., are made, with effect from 1st February, 1919 :—

Mr. C. N. Dalal, B.A., Assistant on Rs. 70, and Acting on Rs. 75 in the Ahmedabad High School, is confirmed on Rs. 75.

Mr. C. C. Mehta, B.A., Assistant on Rs. 65, in the Surat Middle School, is promoted to Rs. 70, Mr. Mehta's services have been lent to the Ankleshwar Municipality and his lien in this Department has been suspended.

Mr. H. K. Gogte, B.A., B.Sc., Assistant on Rs. 65, and Acting on Rs. 70 in the Satara High School, is confirmed on Rs. 70.

Mr. R. L. Vora, B.A., Assistant on Rs. 60, and Acting on Rs. 65, in the Elphinstone High School (G. S.), Bombay, is confirmed on Rs. 65.

Mr. G. D. Damle, B.A., Assistant on Rs. 55, and *sub-pro tem* on Rs. 60 in the Nasik High School, is confirmed on Rs. 60.

Mr. A. V. Apte, B.A., Probationary Assistant on Rs. 50, and Acting on Rs. 55 in the Jalgaon High School, is promoted to Rs. 55.

Mr. C. M. Raval, B.A., Assistant on Rs. 65, in the Ahmedabad High School, and *sub-pro tem* Assistant on Rs. 65 in the Ahmedabad Middle School, (*vice* Mr. A. A. Hakimji) to be Assistant on Rs. 65, in the Ahmedabad Middle School, (*vice* Mr. Hakimji).

Mr. N. K. Desai, B.A., Assistant, on Rs. 70, and Acting on Rs. 75 in the Broach High School, but doing duty in the Ahmedabad High School, (*vice* Mr. C. M. Raval) to be Assistant on Rs. 70, and Acting on Rs. 75, in the Ahmedabad High School, (*vice* Mr. Raval).

5th February, 1919.—The following appointments, etc., are made, with effect from 1st February, 1919 :—

Mr. T. D. Chandorkar, B.A., Probationary Assistant Deputy Educational Inspector, West Khandesh, on Rs. 75, is promoted to Rs. 80.

6th February, 1919.—Mr. R. D. Gaonkar, Itinerant Teacher, on Rs. 70, in the Kanara District, is, with effect from 1st February, 1919, appointed Probationary Assistant Deputy Educational Inspector, Kanara, on Rs. 75 per mensem.

8th February, 1919.—The following transfers are made, with effect from 1st March, 1919 :—

Mr. N. H. Shaikh, Persian Teacher, in the Ahmedabad High School, is transferred to the Surat High School.

Mr. A. M. Arab, Persian Teacher, in the Surat High School, is transferred to the Ahmedabad High School.

The following appointments, etc., are made, with effect from 1st February, 1919 :—

The lien of Mr. A. N. Khansaheb, B.A., Probationary Assistant Deputy Educational Inspector, Surat, on Rs. 75, is transferred to Broach.

Mr. H. H. Nanavati, B.A., Assistant Deputy Educational Inspector, Broach, on Rs. 100, but doing duty at Surat, (*vice* Mr. A. N. Khansaheb), to be Assistant Deputy Educational Inspector, Surat, on Rs. 100.

OFFICE OF THE

DIRECTOR OF PUBLIC INSTRUCTION,

POONA, 17th February, 1919.

J. G. COVERNTON,

Director of Public Instruction.

NOTIFICATION.

List of Marathi Books sanctioned by the Educational Inspector, C. D., is published for general information.

No.	Name of the book.	Name and address of the author, &c.	Price per copy. Rs. a. p.	Purpose for which the book is sanctioned.
1	रवीन्द्रनाथ टागोरकृत गीताञ्जलि.	Translated by Hari Narayan Apte and published by Messrs. Macmillan and Co., Hornby Road, Bombay.	3 0 0	For prizes and libraries of primary and secondary schools and training institutions.
2	हिंदुस्थानातील ब्रिटिश साम्राज्याचा उदय आणि त्याची वाढ.	By Dattatrya Balkrishna Karkare, Jalgaon, East Khandesh.	3 0 0	For Do. Do. Do.
3	माझा युरोपातील प्रवास.	By Prof. P. D. Gune, M.A., Ph.D., and published by Manoranjak Grantha Prasarak Mandal, Bombay.	1 4 0	For the libraries of Do. Do. and Training Colleges.
4	अंकगणित (सोपपत्तिक), भाग १ डा.	By S. B. Dikshit and published by K. S. Dikshit, B.A., Poona City.	0 14 0	For the libraries of primary and secondary schools and vernacular training institutions.

S. BAKARALI,
Personal Assistant,
Educational Inspector, C. D.

NOTIFICATION.

The following list of books sanctioned for Secondary Schools and Training Colleges is published for general information :—

No.	Name of book.	Name of the language in which the book is printed	The purpose for which the book is sanctioned.	Price.	Remarks.
1	Chairman, Philharmonic Society of Western India, Dharwar.— 'Ragas of Hindustan.'	English.	As a prize and library book for Secondary Schools and as a library book for Training Colleges.	Rs. a. p. 7 0 0	
2	Cooper K. and J., Bombay.— 'A First History of India' by H. L. O. Garrett,	Do.	For use in Secondary Schools and also as a prize and library book for Secondary Schools.	0 12 0	Published price. Present price, Re. 1-4-0.
3	Examiner's Press, Fort, Bombay.— 'Man's Great Concern: The Management of Life' by Ernest R. Hull, S.J.	Do.	As a prize and library book for Anglo-Ver-nacular Schools.	0 8 0	Net (paper cover) sold to Indian Schools at bare cost price. No discount or commission on quantities.
4	Longmans, Green and Company, Bombay.— 'Extracts from the English Bible' by T. D. Dunn, M.A.	Do.	For use in Secondary Schools and also as a library book for Secondary Schools.	2 8 0	
5	Macmillan and Company.— 'Laboratory Glassware Economy' by H. B. Dunn-cliff.	Do.	As a library book for Secondary Schools.		

No.	Name of book.	Name of the language in which the book is printed.	The purpose for which the book is sanctioned.	Price.	Remarks.
6	The Pupils' Class-Book of Geography.— 'Asia' by E. J. S. Lay.	English.	As library book for Secondary Schools.	£. s. d. 0 0 8	
7	'Scotland' by Do.	Do.	As library book for Secondary Schools.	0 0 7	
8	Nirody B. Shanker Rau, Egmore, Madras.— 'Half hours with a modern Alchemist.'	Do.	As a prize and library book for Secondary Schools.	Rs. a. p. 1 8 0	Ordinary edition Library
9	Oxford University Press, Bombay.— 'Comrades in Arms' by John Travers.	Do.	For use in Secondary Schools and also as a prize and library book for Secondary Schools.	2 0 0	edition.
10	'Elementary Physics: An Experimental Course for Indian schools' by H. E. H. Pratt, M.A., I.E.S.	Do.	For use in Secondary Schools and also as a library book for Secondary Schools.	1 6 0	
11	'History of the Maratha People' by Kincaid and Parasnis.	Do.	As a prize and library book for Secondary Schools.	7 0 0	
12	Taraporevala, D. B., Bombay.— 'Charm of Bombay' by Karkaria.	Do.	As a prize and library book for Secondary Schools.	5 0 0	
13	Wali Mohammed C. Momin, Manvadar (Kathiawar.) 'Hadis-i-Halila or Confutation of Atheism.'	Do.	As a library book for Secondary Schools.	0 12 0	

OFFICE OF THE

DIRECTOR OF PUBLIC INSTRUCTION,

POONA, 26th February, 1919.

'K. S. DIKSHIT,

For Director of Public Instruction.

NOTIFICATION.

The following list of books, etc., sanctioned by Government for use in secondary schools, etc., in this Presidency is published for general information :—

ENGLISH.

Prose.

Longmans, Green & Co, Bombay.—

'Extracts from the English Bible' by
T. D. Dunn, M.A.

Oxford University Press, Bombay.—

'Comrades in Arms' by John Travers

Science.

Oxford University Press, Bombay.—

'Elementary Physics: An Experimental Course for Indian Schools'
by H. E. H. Pratt, M.A., I.E.S.

History.

K. and J. Cooper, Bombay.—

'A First History of India' by H. L.
O. Garrett.

FOR USE IN ANGLO-URDU
SCHOOLS.

Khahiruddin, M., 22 Kumartoli Dacca,
Bengal.—

'An Elementary English Grammar
and Translation—explained in
Urdu' by Moulvi Abdul Khaleq
Saheb, B.A.

FOR USE IN SECONDARY
SCHOOLS.

VERNACULARS.

Sindhi.

Macmillan & Co.—

'Geography for Junior Classes' by
E. Marsden, translated into Sindhi
by Lilaram Premchand Wadhwa-
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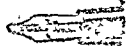
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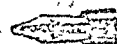
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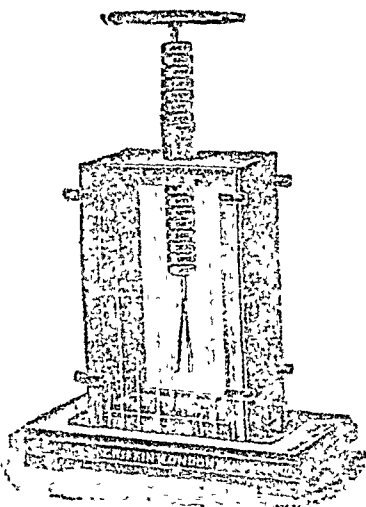
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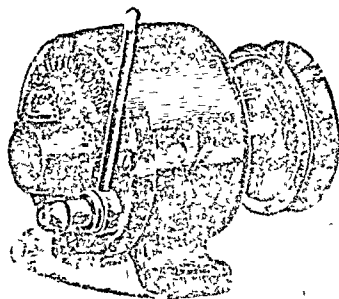
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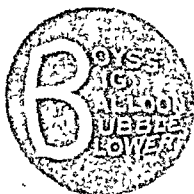
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INDIAN EDUCATION.

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VOL. XVII.]

APRIL, 1919.

[No. 9.

EDITORIAL NOTES.

IN introducing the educational head of the Budget, at the recent meeting of the Bombay Legislative Council, the Hon'ble Sir Ibrahim Rahimtulla surveyed the progress of education in the Presidency and reviewed educational policy for the coming year. His statement, which was frequently interrupted by applause, shows that Government are determined to promote education in all its branches and the liberal allocations made under the various heads are a guarantee that their efforts will be successful. The expenditure budgetted for the coming year amounts to no less than a crore and thirty-two lakhs—an increase of twenty lakhs on the estimates for the current year and almost double the total expenditure made in 1916-17. It is highly gratifying to know that within the short space of two years expenditure has been nearly doubled and we congratulate Sir Ibrahim on his grasp of the educational needs of the Presidency and his determination to further educational development with a liberal hand.

Turning to primary education, it is the declared policy of Government to banish illiteracy by placing "facilities for attending a primary school within the reach of every child of school-going age." If municipalities avail themselves of the Act enabling them to make primary education free and compulsory, they may rely on liberal support from Government. In rural areas the problem is far more difficult but it is the intention of Government to open, at once, 500 primary schools in certain villages with a population of over 1,000 and, eventually, to start a school in every village which has a sufficient number of children to fill it. This is a vigorous policy and we may confidently look forward to a rapid decline in illiteracy, which is one of the chief obstacles to social reform. In spite of the increased expenditure on the expansion of primary education, Sir Ibrahim did not forget the miserable lot of the teachers, the improvement of which has been for many years a crying need. Their scales of pay have been raised and they have also been granted war allowances. With

regard to the training of primary teachers a scheme has been framed to supply the 1,300 trained teachers required annually. It is plainly the intention of Government that trained teachers should gradually supplant untrained in all schools under public management, and it is to be hoped that the training given will be of such kind as to adequately repay the large expenditure involved.

With regard to secondary and collegiate education an equally bold policy is foreshadowed. The number of Schools and Colleges is to be substantially raised and accommodation in existing institutions is to be increased with a view to meeting the growing demand for higher education. Also, the maximum limit of the grant admissible to aided Colleges, which was for many years fixed at Rs. 10,000, has been considerably increased to enable them to admit larger numbers and meet the requirements of the University. On one point only is Sir Ibrahim's statement of educational policy disappointing: no special financial provision has been made for English education for girls. However, this extremely important problem has not been entirely lost sight of and we trust that, when the Director of Public Instruction submits his report on the demand for this kind of female education in the various parts of the Presidency, Government will consider it carefully and make ample provision to ensure that female education in the province is not only placed on a secure financial basis but is treated in a broad spirit that will keep in view the special needs of the women of this country.

* * * * *

Higher education in the Bombay Presidency has suffered a severe loss by the retirement of Mr. F. W. Bain, C. I. E., whose connection with the Deccan College, as Professor and Principal, extended over a period of twenty five years. At Oxford, where he represented the Varsity at both football and cricket, his brilliant academic career was crowned by election to a Fellowship of All Souls. On coming to India he quickly recognised the hidden beauties of Sanskrit literature and "his charming series of idyllic tales" have revealed to the English reader the most æsthetic side of Indian culture and won for Mr. Bain a unique place among contemporary men of letters. Many of his warmest admirers are probably ignorant of the fact that the best years of Mr. Bain's life were spent as a Professor of History and Economics in an Indian College. But his great and varied attainments, his sturdy independence of thought and action, his hatred of

sham and conventionality and, above all, his deep sympathy with India and her people eminently befitted him for the work of a teacher in this country. There is no doubt that he has left the impress of his remarkable personality on the minds of several generations of students and been a source of inspiration to not a few. It is, perhaps, a matter for regret that Principal Bain did not take a greater part in the work of the Bombay University, but the time and energy thus saved were given whole-heartedly to scholarship and literature. We wish Mr. Bain in his retirement, long years of health and happiness in which to continue his literary labours and to interpret to western readers, as only the artist can, a certain side of the grandeur of the ancient civilization of this great country.

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In view of the many epidemics which have lately visited many parts of India and dislocated the work of colleges and schools alike, it is interesting to note that in America, during the recent influenza epidemic, it was the opinion not only of teachers and doctors but also of a large part of the community that it would have been equally safe, if not safer, for the pupils, if the schools had been kept open and rigid medical inspection provided. The plan of closing schools and colleges whenever infection appears is usually followed in India, but in America, according to the *Chicago School Review*, it is considered old-fashioned and is discredited by sanitary officers. The method of handling contagion in educational institutions in India needs to be carefully gone into, as epidemics break out much more frequently in this country than in the west. There is no doubt that medical inspection can do a great deal and the matter deserves the most careful consideration of Government. But, in the meantime, it is well to remember that neither the ordinary family nor the ordinary community knows how to protect itself against contagion and that the custom of closing schools and colleges has often disastrous results, from the point of view of health as well as work. In educational institutions it is sometimes customary, when an epidemic appears, to make attendance voluntary and experience tends to show that those students who continue their studies fare better than their more timid companions who run off to their homes. Almost invariably it is true that the students who live in hostels suffer least from the ravages of the various diseases which hamper the progress of education in India.

EDUCATION IN ENGLAND.

EDUCATIONAL ADMINISTRATION.

AN important part of the reconstruction proposals which are now in the air in this country is concerned with the method of administering our educational system. The time-honoured practice has been to have a central authority consisting of the Board of Education working in alliance—or sometimes in conflict—with local authorities. Prior to the Act of 1902, the local authorities were appointed at elections held for the purpose and were called School Boards. The Act already mentioned provided for the abolition of School Boards and constituted each county, city, town or urban district council, the education authority for its own area. It will thus be seen that what are now called local authorities are elected in the main on the Municipal Franchise, although as a rule they delegate their functions wholly, or in part, to a body called the Education Committee made up to some extent of their own members and supplemented by what are known as co-opted members, the latter being chosen on the ground of their special knowledge and experience in education or chosen to represent some particular interest or group of interests. The central authority on the other hand, now called the Board of Education, consists in practice of a body of permanent officials headed by the President of the Board and the Parliamentary Secretary, these being members of Parliament and attached to the Government of the day. In theory there is a Board of Education made up of the five principal Secretaries of State and other Ministers but this body has never been known to meet nor does it take any part in the administration of education. Thus, the central authority differs wholly in its constitution, if not in theory at least in practice, from the local authorities.

THE MACHINERY EXAMINED.

Recently there was published a Report of the Machinery of Government Committee, a body appointed under the Chairmanship of Lord Haldane to enquire into the responsibilities of the various departments of the Central Executive Government and to advise in what manner the exercise and government of its functions should be improved. The Report deals with the general principles first and suggests that the business of the various departments should be distributed as far as possible according to the class of service with which they are concerned. Among the classes of service mentioned is that of education and the Committee points out that such matters as employment and health are intimately connected with education. It is stated that the Ministry of Education would be concerned predominantly with the provision of education wherever and by whomsoever needed. It would therefore deal with persons in so far only as they were to be educated but this would involve provision for the continuous acquisition of knowledge and the promotion of research. The Committee takes the view that no rigid exclusion as between one department and another should be permitted—that if there is to be one Ministry of Education, another of Health and another of Finance, each may and should have functions relating primarily to its own task but it should also have secondary functions by which it is related to the work of associated departments. Sometimes regular or informal communication on specific questions will suffice but contact of some kind is essential so as to secure that each department makes the fullest possible

contribution to the general maintenance of the highest standard in all branches of the work upon which its main forces are concentrated.

THE BOARD OF EDUCATION AND ITS POWERS.

The Report points out that the Education Act of 1899 secured a concentration of the various educational departments and entrusted them to the control of the Board of Education. On this it may be observed that a very great amount of educational work is still carried on in this country outside the cognizance of the Board. Among other examples may be mentioned the whole field of private school enterprise, the work of the Poor Law schools and the educational activities of the army and navy. Nevertheless, it is true in the main that the national service of education has been mainly under the supervision of one department. Others have been concerned, but with them education has been a subordinate matter, although so connected with their principal activity as to make it difficult to effect any complete severance such as would be involved in the transfer of their educational work to the Board. The risk of sectionalism involved in this arrangement has been met in large measure by the Board's practice of establishing systematic relations with other departments concerned with education and using these relations as a means for the consideration of particular questions. The relations thus established have not however been in all cases so complete and harmonious as is desirable. Thus the Report points out that the co-operation between the Board of Education and the Home Office, which supervises reformatory and industrial schools, is by no means free from defect. While declaring that closer co-operation is immediately to be desired, the Report does not exclude the possibility that at some future date the Board of Education may be found to be the central authority best fitted to assume the entire or main responsibility for the administration of any of the educational services for which other departments are at present answerable to Parliament.

THE CENTRAL AUTHORITY.

While the views expressed in the Report are favourably received in most quarters, many people are of opinion that the suggestions might be carried somewhat further. In particular it is pointed out that the present Board of Education, being, as it is, nothing more than a body which never meets and is in no way directly responsible for the proceedings of the permanent officials, might well be replaced by a real Board in the form of a Standing Committee of the House of Commons with the President of the Board at its head. Thus an active Parliamentary Committee would be constituted, able to influence legislation and to take up the position of responsibility in regard to administration. It is urged that this plan would be an improvement on the present method by which a body of permanent officials is invested with very large powers subject only to such checks as are provided by questions in Parliament. While it is true that these powers are in the main exercised with great discretion, there have been occasions when needless friction has been produced and at any time such friction may be generated through the autocratic action of a single official.

THE WHITLEY SCHEME AND EDUCATION.

The Central Body or Standing Committee such as is suggested would have the further advantage of furnishing the employers' element on any

national educational council which may be set up under the Whitley Scheme. In the various branches of industry where such councils are being established the practice is to have a joint committee representing the employers on the one hand and the workpeople on the other. In all forms of civil service the employers, who are the public; should be represented by selected members of the House of Commons and not merely by a body of paid officials. Teachers in England are already discussing this problem with a view to discovering some method by which the teachers' side of a national council may be constituted. Local councils are a comparatively easy question since they will probably be formed by the local authority on the one hand and local teachers on the other. Everything seems to be moving towards the establishment of a system of free consultation between teachers and administrators and when this is accomplished it is hoped that many existing difficulties in regard to salaries and conditions of work will be adjusted without any great trouble. The need of some such system of consultation is shown by the fact that at the present time the teachers in several towns have withdrawn from the schools as a protest against the treatment they have received from the local authorities and in almost every case it is found that the difficulty has been accentuated by the want of any proper machinery for bringing the two parties together and compelling them to discuss their differences before proceeding to extreme action.

THE FREE PLACE SYSTEM.

The British Association has recently issued the report of a committee appointed under the Chairmanship of Mr. C. A. Buckmaster to consider the working of what is known as the Free Place System. This is an arrangement introduced in 1907 by which, in return for certain State grants administered by the Board of Education, secondary schools working in connection with the Board are required to offer a certain number of places in the school, free from all tuition fees, to pupils who have had at least two years previous education in public elementary schools. The object of this plan was to offer facilities for secondary education to boys and girls whose parents could not afford secondary school fees, but, in practice, it has been found best to avoid any poverty test and to throw open the free places to all elementary school children who were likely to benefit by the more advanced training. Thus the free places have become practically undistinguishable from scholarships or bursaries. An acknowledged difficulty has been that the "free placers" have often failed to fit in to the conditions of their new school. The Report says that the system works well in schools where over half of the pupils are drawn from public elementary schools. This means that there is no marked difference of social atmosphere in such cases and the newcomers find themselves at home in their new surroundings. In other schools, however, the "free placers" are unable to derive much real benefit from the general training of the school because they are few in number, tend to group themselves together, and being for the most part day boys and not boarders, they are brought into contact outside the school with all their previous associations.

SOME SUGGESTIONS.

By way of overcoming these difficulties, the Report suggests that some of the children now holding free places would derive greater benefit from a course at a higher elementary, junior technical or trade school.

It adds that free places should not be awarded to children who enter the secondary school over 12 years of age and that a maintenance grant should be given during those years of school life beyond the age of compulsory attendance at a full-time day school. The provision of a midday meal for children who come from a distance is also suggested and it is proposed that the selection of "free placers" should be based not solely on a competitive examination but largely on the results of an interview with the Headmaster of the secondary school assisted by one or two members of the local education authority. It is also pointed out that since the provision of free places is intended to enlarge the opportunities of children of ability, a more generous provision of university scholarships is called for, since the present sums ranging from £50 to £80 a year are quite inadequate in cases where no help can be expected from the parents. It will be seen that all these suggestions converge on the problem of breaking down the social barriers which exist between the various types of schools in this country. These barriers have, in the past, served to hinder the progress of talented children whose means were restricted and opinion here is practically unanimous in demanding that fuller opportunity shall be given to such children in the future.

CO-OPERATION AMONG UNIVERSITY TEACHERS.

The Teachers' Superannuation Act has explicitly ruled out the claims of teachers in university institutions. This is regarded by many of these teachers as a great hardship, especially in regard to the fact that the salaries which they receive are usually very small and the pension schemes which have been set up in the universities offer far smaller advantages than those obtainable under the Act. In order to present their case properly the university teachers are taking steps to form an association, the exact name of which is not yet determined. The movement began among the university lecturers and at present it is not certain that the co-operation of the professors will be secured. The promoters, however, hope that ultimately an association of university teachers, as distinct from one of university lecturers, may come into being. They point out that many advantages will result from such co-operation since the questions to be discussed cover a field far wider than that of salaries and pensions. Hitherto, each university in England has been inclined to work apart from the rest and to cherish a splendid isolation, with the result that there is much duplication of effort and each university feels bound to maintain a full equipment in every department. With the development of higher technological studies, some departments become extremely costly to maintain and there is a difficulty in obtaining highly qualified professors and lecturers for salaries far below those which they would receive if they engaged in some branch of industry where their knowledge of applied science would command a high rate of remuneration.

OVERSEAS TEACHERS IN ENGLAND,

A movement has been started to establish as a War Memorial a centre for the overseas teachers of the Empire. It is proposed that this centre shall be housed in a suitable building where hostel accommodation will be available for overseas teachers visiting this country and where also they may obtain advice as to places of educational interest which they may wish to visit. The sum asked for is £25,000 and contributions have been received from many Associations of Teachers. The idea is an

excellent one although it has to be remembered that overseas teachers coming to England do not, as a rule, wish to remain in London but desire to visit other parts of the country. A useful supplement of the scheme would be the establishment of some method of providing advice and even hospitality in our provincial centres. It should be possible to have in our large towns a sort of educational consul to whom visitors might go with the certainty of receiving help and useful guidance. In the meantime the original scheme seems likely to be carried out and there can be no doubt that it will be a valuable link between teachers in England and their colleagues overseas.

THE NEW MUSIC TEACHING.

Many of the most distinguished teachers of music in this country are interested in a new movement which has for its aim the training of pupils in musical appreciation as distinct from performance. It is felt that the teaching of music in our schools has hitherto rested too exclusively on the idea that the pupil was to be trained as a violinist, a pianist or an organist. This aim has also been conspicuous in the work of our larger institutions. Of the pupils thus trained only a very small number have attained any considerable power over their instrument, as judged by the test of their ability to earn a living on the concert platform or elsewhere. Failing to do this, many of them have elected to teach music, thereby handing on in many cases their own incapacity. It is now coming to be believed that the centre of interest should be not so much the potential performer as the potential hearer of music, and in schools and institutions classes in ear training and musical appreciation are being conducted with marked success. The suggestion that no one can understand music properly unless he is something of a performer is met by the provision of choral music in which all the pupils may take part. It is claimed that the true aim of the music teacher should be to enable the pupils to read music as easily as they read words. It is also held that when we have a truly appreciative musical public, we shall have no lack of highly trained performers, since the chief obstacle to the supply of such performers at the present time is the fact that their efforts meet with little or no recognition.

FRANK ROSCOE.

EDUCATION, VOCATION AND OCCUPATION.

A FACT which is rarely noticed by the general reader is that some of the most definite efforts for educational advance have been made either at the time of, or immediately after, a war. A few examples from England will suffice so show this, though it would not be difficult to find others. The Education Act of 1870 which established Primary Education on a broader basis and led to a great expansion of the number of schools was passed at the time of the Franco-Prussian War; the Education Act of 1902, which organised the whole of the Primary Schools according to a systematic plan and promoted definite steps for the advance of secondary education, came some little time after the Boer War. During the present war, notwithstanding the huge sums needed for other immediate purposes by a Government with its attention fixed

on the prosecution of the war, an Education Act has been passed which must go very far to increase the general education of each and every educable individual and also give scope for some form of special education for many more than ever was previously the case. For this noteworthy fact at least two reasons are to be found. A war does much to awaken people from that apathy which is so common among societies, as among individuals. Further, it is seen that the result of a war depends upon the mental efficiency of individuals as well as on their physical fitness. Perhaps in the present time another reason comes into play, in that it is felt that there must be some change in the attitudes and ideas of men if wars are to be avoided. For wars imply some lack of self-control, some defect of intellectual vision, or some form of selfishness. Whatever the reason is in any particular instance, this fact should suggest at once in times of obvious discontent on the part of a people, that something may be wrong with the educational system. And this, we believe, is essentially the case in India. The attention of Government should be centred far more on the causes of discontent and the finding of the remedy than on attempts to suppress the anarchy which has frequently arisen as a result of the mistaken educational policy. It ought to be seen that revolutionary ideas in the bad sense can only be effectively met by evolutionary ideas concerning the methods of organisation of the different sides of human life and activity.

In all ages and amongst all peoples hunger, or the prospect of it, has been the most potent factor making for political discontent and revolution. There is a certain mental balance, even of "good spirits", in the circumstances of physical satisfaction. But this is not all. To many minds discontent and restlessness come from the conflict between the ideas and feelings as to what they would like to be and to do and the actual work which social organisation forces them to do. To state the matter briefly : the individual in order to obtain at least physical satisfaction wants an occupation paid for by others, and he strongly desires that this occupation shall be congenial and suited to his capacities. He might say that he wishes his form of occupation to correspond with what he conceives of as his vocation. Here then are definite problems which the educationalist must closely consider if he is to do his part in social advance and the prevention of social disorder, which indubitably is bad if the ends desired can be obtained in other ways.

Education as socially organised must concern itself more with a consideration of social welfare than with the mere likings of the individual. But when it is simply a question of physical satisfaction it is clear that the physical and economic factors determine both social welfare and individual satisfaction. Education has, however, all too frequently been influenced by vague theories—such as that of "self-realisation",—and to the disadvantage of the individual and the society the result has been that individuals have not been given the instruction nor the training especially necessary for the particular physical and economic situation.

The very meaning of "Government" is control. But besides the power and the right (within limits) to control, it has the means of obtaining a knowledge of conditions over a much wider extent than is usually open to the individual. What Government permits, the individual is

led to suppose, is at least not harmful to the society generally nor to himself in particular. For example, if the Government goes on allowing the building of new Arts Colleges and the increasing of the number of students in existing Colleges, it is not without reason that the individual may suppose that in the opinion of Government it is not a bad thing if there are still more arts students. At least, he may not feel unjustified in believing that such a course must be in accordance with social welfare and so in one way or another a means, at the lowest, to physical satisfaction. He expects to have thus a means of obtaining sufficient good food for himself and those dependent on him, and clothing and shelter. Yet scarcely a moment's reflection is necessary to find that already the rate of remuneration of the arts graduate in India is lamentably low because of the superabundance of candidates for almost any position for which an arts graduate seems suited. A few years in an Arts College gives one recurring evidence of the difficulty, and the increasing difficulty, of graduates gaining any positions whatever. On the other hand while heads of most Government departments will report that they have received hundreds of applications for a position of Rs. 60 per mensem there is a difficulty in obtaining even for four or five times that amount, engineers, chemists, efficient agriculturists, and business men. Thus while the absence of the men with the right kind of training affects society in such a way that it is not getting out of its physical circumstances the wealth that is possible and which it really needs, the presence of too many graduates of the other type only makes the individual share of the small amount of new wealth produced so much the less. Here there is obviously a vicious circle—and the only way of breaking it is by education, and this as determined by some strong action. If, for example, it is not good for the society nor for the individual that he shall be trained along the lines of an arts graduate, then Government should not only not itself supply the means for him to perpetrate his mistake, but should not permit others to give him the means to do so. The individual looks to the Government for direction, and that direction must sometimes take the form of control of the individual that he may not do what he most prefers, but may even feel compelled to do something he dislikes.

To repeat : the individual needs training and instruction which will give him means to carry on some form of occupation which will give him the means of livelihood. This occupation he may strongly desire to be of a particular kind—the type of work which he considers to be his vocation. Now, it may be said without much fear of contradiction that few persons have from the outset of school life one clear unchanging idea of what they would like to do as a means of livelihood. For most of those who in later years have some ideas on the question have gone through a series of changes in which first this then that seemed to attract most. Another thing seems clear—it is as simple as it is important, and as obvious as it is neglected—that most persons desire most to do the work for which they have the most knowledge and skill. Frequently when an individual says he thinks his vocation is so and so, he means that he has knowledge of this and has faith in his capacity for it. From this last fact and the fact that the ideas as to vocation undergo changes it may easily be inferred that the educationalist may endeavour to arouse certain interests and desires *i.e.*, cultivate the sense of a particular vocation, and this chiefly by emphasising the instruction on that side and giving the predominant

training of that kind. The cultivation of a sense of vocation and the preparation for occupation should go hand in hand and depend one on the other. Consideration of this fundamental requirement must show that the form of education will depend largely upon it.

How these considerations affect some of the main problems of education and social life in India may now be examined in a few cases. Very much of the social welfare depends upon agriculture, and the only way in which the needed increase of wealth can be attained in some areas is solely by improvements in the methods of agriculture. It would appear therefore that if this is to be achieved an effort should be made to arouse a sense of this particular type of vocation in the persons in the particular localities where this is most needed, and further to give the instruction and training which alone give confidence and the habit of efficient activity. The very worst thing possible is the form of education which leads the child of agriculturists to the chief interest in literature and such things—to matriculation, an Arts degree, a Law degree, till eventually from an unsuccessful pleader he becomes a "discontent", a political scribbler, and a source of little but disorder. The purpose and aim of education in an agricultural area should be predominantly to arouse interest in the life of agriculture, and to give the best knowledge and training for advance. And such training must be actual practice in important operations so that it becomes rather the formation of a habit. A system of education which turns out unsuccessful and discontented arts graduates, instead of sufficient intelligent hard-headed and hardworking farmers of the yeoman type, is in large part self-condemned.

A similar criticism must be urged against a system of town education which does not make technical instruction and training the predominant factor for most of the pupils. Further, such instruction and training must be in particular relation to the local needs. Each individual wants first to have his physical needs satisfied: on that depends almost all the rest of his activity. And the way to obtain these means most easily and for the greatest general benefit to society is in co-operation with the local industries.

It ought not to have required the special work of Froebel and of Montessori to demonstrate that the intelligence is trained just as much, (and with some children much more) by forms of manual activity as by direct efforts to develop the intellect. Thus, it is no fair argument against such proposals as are implied above, to say that they sacrifice the general intellectual education of the child. By all means give as much instruction on all sides of life as may be conveniently possible. Again, for the cultivation of habits of active industry, of precision and honesty as well as for the emphasis on the moral responsibility of social usefulness, the practical forms of education are at least equal to—in our opinion, they are better than—the more theoretical. Then consider the question of appreciation of the beautiful. Surely the actual contact with the varied aspects of nature, which the preparation for an agricultural life would give, presents more continuous and far better opportunities of arousing an interest in, and cultivating a love for, the beautiful than any of the lessons or other means usually adopted in schools. Very much of the work for which training of a technical kind is given is artistic in character, and in some instances the pupil is himself called on to endeavour to produce something which in its degree is more or less beautiful.

All these remarks are but suggestions which if followed out into their practical application would very definitely alter the prevailing organisation of Indian Education. Already, on account of the stimulus given by the war and the definite needs which have become evident, the organisation of education has undergone and is undergoing radical changes in these directions in the West. There is urgent need for changes in India also : it requires a thorough change in its educational policy. Such a change can be satisfactorily carried out if the Government takes up the matter whole-heartedly and carries a living and progressive policy through.

ALBAN G. WIDGERY.

THE PROBLEM OF ENGLISH VERSUS THE VERNACULARS.

IN October 1916, the Shiksha-Vichara-Mandala of Poona issued a pamphlet making out a strong case in favour of a memorial to the Bombay University, on the subject of allowing candidates at the Matriculation Examination the option of answering questions in all subjects, except English, in their vernaculars. This created a stir in the educational world with the result that the educationists divided themselves into two parties—one in favour of the proposal and the other against it. The leading newspapers and magazines opened their columns to a discussion of the place of the vernaculars in the scheme of high school instruction. The next important event in this connection was the Educational Conference which was held at Simla in August 1917. This was attended by distinguished educationists from all parts of India. In spite of this official and non-official activity, definite conclusions have yet to be reached. Thus the problem of English versus the vernaculars is still an open one and the aim of this article is to discuss the problem from a practical point of view.

Let us begin by recalling to ourselves some of the chief evils which are attributed to the method of employing the English language as the medium of instruction. It is maintained that the method involves an incalculable loss of time ; secondly, it stunts mental growth by encouraging cramming ; thirdly, it prevents a free and rapid interchange of thoughts and ideas between teachers and pupils ; fourthly, it leads to the deterioration of the study of the vernaculars. An impartial study of the situation will tell us that these evils are not altogether imaginary, although the English language cannot be made wholly responsible for them. To attempt to attribute all the evils of the existing method to the English language is as irrational as the attempt to explain the defects in the character of our educated men as the effects of English education ! A careful consideration of these evils will prove that all of them are not wholly due to English being the medium of instruction. English being a foreign language, it is natural that instruction through it should involve a good deal of time. And if vernaculars become the medium of instruction this evil will be obviously removed ; at any rate considerable mental energy will be saved. It is also true that the change will lead to a better

understanding of subjects like History, Geography and Mathematics. But it cannot be said that the change by itself will enable the pupil to deal more with ideas than with words. The fact that our pupils deal more with words than with ideas is due rather to the absence of the right method of instruction than to the medium of instruction. Until very recently many of our schools aimed at filling the heads of pupils with a mass of undigested matter. Practically no serious effort was made to stimulate pupils to think for themselves. The evil of cram is not connected only with the English language. Perhaps there is more need for it if the medium of instruction is English. But it may be observed that it ought to be necessary only in the early stages of instruction. Lastly, we have to see how far English is responsible for the deterioration of the vernaculars. In Volume XVII, No. 1, of *Indian Education* we are told that the Committee, appointed by Government in England to consider the teaching of modern languages, emphasised the necessity of a thorough grounding in English for the study of a modern language. This means that the study of a second language should not begin unless the knowledge of the first language is adequate. It is a well-known fact that our pupils begin the study of English with a most inadequate knowledge of their own vernacular, although theoretically it is the first language. The question is, who is responsible for this inadequate grounding? It is alleged by the advocates of teaching through vernacular that this inadequate grounding is largely due to the medium of instruction in High Schools. It is true that the English language, on account of its being the medium of instruction, receives special attention at the hands of High School authorities. But this is no reason why the study of vernaculars should be neglected. The truth is that our educated society as a whole did not care for the vernaculars. Some parents even went so far as to positively discourage the use of the mother-tongue in their homes! I remember quite well how my father, who was a teacher himself, insisted upon my talking in English while at school. We were constantly encouraged by our teachers at school and elders at home to practise talking in English and to read extra English books. If a person pointed to the neglect of the vernacular, one replied 'It is our mother-tongue and as such requires no special study.' It is only of late that we have begun to recognise the necessity of a thorough grounding in the vernacular. And it is very likely that this general social apathy influenced the High schools in the past. Thus it appears that the English language cannot be made wholly responsible for the evils attributed to it.

Now let us consider the effect of the proposed change on the study of English in our secondary schools. It does not require much reflection to see that the change in the medium of instruction will benefit our pupils in many ways. But it requires careful consideration to determine the exact extent of the evil which the proposed change will inflict upon the study of English. In our opinion if vernaculars become the medium of instruction, the study of English will seriously suffer, unless some judicious changes are introduced into both the syllabus and the time-table. In this connection a reference to the recently issued quinquennial report on Public Instruction in the United Provinces will be very instructive and interesting. A few extracts from it are given in Volume XVI, No. 2, of *Indian Education*. In an English school in that province there are ten classes. Up to the year 1915-16, instruction

in English began with III class and English was the medium of instruction in all the classes from VII to X. In 1915-16, vernacular became the medium of instruction in all classes from I to VIII. One Inspector reported that the change ought to be beneficial, but he feared that the result might be detrimental to the study of English. Some head masters reported that many boys, who had already learnt their subjects in the vernaculars, found it impossible to learn them all over again in English in the time at their disposal. The Inspector of Benares division observes, "One can only hope that the improvement in the quality of education will be sufficiently marked so as to repay the additional burden imposed upon the teachers and to compensate for the inevitable falling off in the knowledge and familiarity with English." These extracts amply justify the fear that the study of English will suffer, if vernaculars become the medium of instruction. And as a result of this the English language will be reduced eventually to a subordinate position in the system of our education. There are some persons who will not mind this result, while there are others who will welcome it. It becomes, therefore, absolutely necessary to determine the position of the English language in our system of education.

Before we do so, let us first measure the social value which the English language enjoys at present. There was a time when society set such high value on the ability to talk and write English well that to be ignorant of it was considered a disgrace. Familiarity with the English language was necessary both for social and official distinction. And, even to-day, educated Indians use English freely in their intercourse with one another. For instance, the Mandala of Poona thought it better to issue its pamphlet in English! Then again the English language is preferred to vernaculars as a medium for discussion and deliberation, *e.g.* the deliberations of the National Congress are principally conducted in English. In short, the English language is the medium of exchange in the intellectual market of educated India. This then is the 'inevitable given' which must be taken into consideration in determining the position of the English language in our system of education. We cannot agree with those who preach 'militant nationalism' which measures the value of English by the principle of sordid utilitarianism. These militant nationalists maintain that the standard of English in secondary schools need not be very high. It is enough, if students holding school-leaving certificates are able to consult English text-books and works of reference. This position, however, cannot be maintained without contradiction. Our lives to-day are influenced by the ideals of nationalism and self-determination. This influence has been possible to us through our contact with western culture. This contact has been accessible to us through the study of the English language. Then again the presence of healthy optimism in our midst can be traced to the same source. The valuable influence of English education consists just in this, that it has taught us to appreciate the grandeur of this life. It is true that our forefathers lived a life of lofty ideals in this world. But they were not interested in it. Our religions traditions have a decidedly anti-mundane influence. It is necessary to place special emphasis on this point in view of the present reaction against the Indian leaders of the old school, who attached such a great importance to everything English that they failed to recognise the defects and limitations of western culture. But the present reaction is equally onesided in its tendency to belittle the influence of

western culture. It is true that our literature, *i.e.*, Sanskrit and Persian, is full of lofty ideals. But it is impossible to revive them, however strenuous our efforts may be. Western culture, both for good and evil, has produced indelible impressions on our minds which cannot be effaced. And wisdom consists in arriving at a judicious compromise which will effect a happy synthesis between the eastern and western ideals. It is therefore, necessary that every educated Indian should be able to appreciate both these cultures. This means that he must be familiar not only with his literature but with English literature as well. Under the present circumstances college education is not within the reach of many persons. A majority of us will have to be satisfied with secondary education. The standard of English in secondary schools, therefore, ought to be such as to create a taste in the pupil for English literature. Then again, we must remember that no nation can afford to rely exclusively on its own store of knowledge. It must be in touch with the whole of the civilised world. And in the case of India this vital touch can only be maintained through the medium of the English language. Thus it is clear that it is of supreme national importance that English should occupy an important position in our system of education. If the point of view maintained in this article is sound, the question of the ultimate disappearance of the English language is simply unthinkable.

While on the subject of the position of English in our educational system, it is necessary to refer to the view according to which the syllabus of secondary education must not be a means to college education. It is obviously unreasonable to increase the intellectual burden of all high-school students in order to facilitate the work of such of them as go to colleges for higher education. But it may be observed that the majority of these who fail to join a college are forced to do so by circumstances. Almost all of them would be very glad to receive a college education if they could do so. It is not, therefore, a sound policy to have two standards of English in our secondary schools. In fact the old distinction between the School Final and Matriculation examinations did in a certain measure meet this difficulty, although the standard for English was the same for both. But it was then contended that it was unreasonable to prevent School Final candidates from receiving college education. After all the additional intellectual burden involved does not seem to be very great. And on the whole the present arrangement seems to be the best under the circumstances.

Before our position is summarised, it will be interesting to state a few facts about the fortune of the English language in Japan. The facts are gathered from '*The Educational System of Japan*' by the late Mr. W. H. Sharp, M.A. In Japan the English language has only a subsidiary use, like that of French or German in England. The Japanese do not aim at writing or talking English well. They want to consult English text-books or works of reference. At one time, however, it was attempted to make English one of the languages, perhaps even the language of the country. But the task was found to be too great. Persons who studied English during the earlier portion of the present reign have a better practical knowledge of English than even university graduates of to-day. This is explained by the fact that in those days the text-books were in English. And even in 1906 the Science and engineering students had a better command of English than their companions.

The policy of eminent men in Japan has been to replace the foreign textbooks by vernacular ones, with the result that there has been a considerable falling off in the student's mastery of the foreign language. With all this there is a great anxiety on the part of the Japanese to learn English. In Middle Schools alone nearly 100,000 youths grapple with English. (Middle Schools in Japan correspond to our High Schools). This is largely due to the fact that the language is necessary for the study of western science and arts. Then again many Japanese young men cherish the ambition of going out of Japan to countries where knowledge of English will be extremely useful. And finally there is the educational value of the study, on which a few lines from Mr. Gulick (*Evolution of the Japanese*) may be quoted:—

"In a conversation with a leading educator I was maintaining that a wide study of English was not needful for the Japanese youth; that the majority would never learn enough to make it of practical use to them. The reply was that the boys needed the drill in English in order to gain clear methods of thought even if the boys should never make the slightest after-use of English in reading or conversation, the advantage gained was well worth the time expended." It appears from these facts that the English language occupies a secondary position in the educational system of Japan. But it is significant that many students are very keen on the study of the language. And further the value of the language for science and art is recognised, although the connection of Japan with England is but indirect and not in any way vital.

Let us now recapitulate the results of our discussion. We welcome the change in the medium of instruction and undoubtedly it will benefit our pupils in many ways. But it may be pointed out that without a good method of instruction, the change by itself will not do much good. Secondly, it is not fair to throw the entire blame on the English language for all the evils connected with the present method. They are partly due to the medium of instruction, partly to the apathy of educated people themselves towards their vernaculars and partly to the absence of the right method of instruction. Thirdly, it is more than possible that the study of English will suffer as a consequence of the change in the medium, unless some vital changes are introduced into the syllabus and the time-table. And it is of supreme national importance that English should occupy a leading place in our system of education. It is therefore, essential that the standard of English in secondary schools must be such as to create in the pupil a taste for English literature. Of course it cannot be the aim of secondary schools to make the pupil able to appreciate the exact significance of western ideals. He cannot do it unless he is thoroughly familiar with English literature. At best our schools can prepare the ground for further study which depends partly on the pupil himself and partly on his circumstances. Further, it is necessary that a pupil should have a thorough grounding in his vernacular before he leaves his school. And it is our belief that this can be attained, provided we are prepared to introduce some fundamental changes in the syllabus of education both primary and secondary. As the whole question is very important, the nature of these changes must be discussed in a separate article.

K. H. KELKAR;

A PROTEST AGAINST CO-EDUCATION.

THE leading citizens of my native place—a town of some importance in the Western Presidency—and, I think, of other towns also have just received a communication from the Education Department. They are required to state if there is a need of a Girls' High School in their midst and, in case sufficient girls for a secondary school are not available, to say if they have any objection to their girls being educated along with the boys in the existing High School. To each of these alternative proposals I, personally, object. To the first because the curricula and the methods followed at present, in my opinion, are not quite suitable for the education of our girls. But these are capable of being set right without much trouble. I, therefore, postpone the treatment of this subject. The second alternative to me seems to be decidedly more dangerous, for co-education is fraught with many evils. These I wish briefly to describe.

Education is essential for the progress of a country. If the future of any land is to be great, it must provide effective means for the development and education of its sons and daughters. In this connection, however, it should be remembered, that the future grows out of the past. Any attempt to break away roughly from the past, instead of accelerating our progress, often retards it. Every action which goes against the grain, creates friction and fritters away energy. Hence we must be careful to avoid all unnecessary friction. Now the traditions and customs of both the Hindus and Mahomedans are against co-education of sex. I do not see why we should break away from our traditions, if we can advance our education equally well by respecting the sentiments of the people. A disregard of these feelings might provoke some to oppose all education of woman.

Orthodoxy dies hard ; old world traditions and superstitions cling to people and retard the progress of nations and the race. No reform can be effected except with a hard heart. Milk-and-water sort of men can not help us forward. It is no use, therefore, to respect a sentiment or a tradition at the cost of checking our progress in the race of nations. The nations that have gone in for co-education stand high to-day. Such would be the feelings of an enthusiast in the cause of co-education.

But I would ask him to cool down his enthusiasm a little and calmly tackle the problem. We do not want people to stick blindly to the indigenous or the old. Whenever and wherever the indigenous and the old are found undesirable they must be given up. But in the present case the indigenous and ancient 'prejudice' seems to be well-founded and reasonable.

Education is a means to an end. Education is the process which draws out the best in any individual. It aims at bringing about the highest development of which each is capable. Now the best in man is not the same as the best in woman. Woman is more synthetic and man more analytic, woman reaches truth more by intuition and man more by reason. Woman's love is often limited to a narrower sphere than that of man, but in its own sphere it is deeper, more tenacious and

abiding. Man again is characterized by a sort of will which expresses itself in aggression and incessant play of activity. The will of the woman on the other hand shows its strength in enduring and submitting to hardship quietly. Man is active, woman passive. Besides the aesthetic sense of woman is of a finer and softer character.

Prof. Welton thus writes on this subject: "The profound physiological differences which distinguish the sexes are the correlates of equally important mental differences. Nor is the one unlikeness, any more than the other, merely the result of unlike training and education."

Dr. August Ford says: "Adhering in a general way to the main definitions of psychology,.....man considerably excels woman in his creative imagination.....and by his critical mind.....Artistic production confirms this opinion. Woman is herein on the average much inferior as regards creation and production.....In the domain of sentiments the two sexes differ very much from each other, but we cannot say that one surpasses the other. Both are passionate but in different ways.....As regards will-power, woman, in my opinion, on the average is superior to man. It is in this psychological domain that she will always triumph."

Prof. Welton, whom we have already quoted, says: "The functions of men and women in the world, are, and always have been, essentially distinct. Now the whole course of evolution makes clear that progress involves increasing differentiation of function and consequent increasing divergencies of organization, so that the higher the level reached, either by individuals or by societies, the more strongly marked become essential differences."

Prof. Welton's opinion is founded on biological facts and observation of nature. Amongst the mammals the male has to do the work of foraging abroad or standing on guard at home. Amongst the birds, though male and female more evenly share the responsibilities of bringing up the little ones, the part of the male is harder in a way. Regarding man Prof. Havelock Ellis states: "Nature accords the male but a secondary and comparatively humble place in the home, the breeding place of the race; he may compensate himself, if he will, by seeking adventure and renown in the world outside. The mother is the child's supreme parent and during the period from conception to birth, the hygiene of the future man can only be effected by influences which work through her."

All these things clearly show that the courses of education for man and woman must be different. Hence an attempt at co-education must prove fatal. Prof. Welton says: "But the further that early stage is passed, the more do the intellectual differences of the sexes become operative. Soon boys and girls begin to retard each other's progress—the girls being held back for the slower boys in some subjects and in their turn hindering the advance of the boys in other subjects."

The writer of that by no means uninteresting book, *Man and Woman*, observes "The girl's brain grows but little after the age of seven, and has actually ceased to grow by about the age of twenty; the man's brain does not reach its maximum size until after thirty years of age."

It is sometimes argued that because man and woman have to live together in after life, they should be educated together. They are to form the complements of each other and are to be co-workers in the same cause, and should, therefore, be prepared in the same training ground. This is fallacious. An engineer and a carpenter become co-workers in a certain sense; does it follow therefore that they should pass through the same course of studies? Certainly not. Each should pass through a distinct course of education and when each has reached perfection in his own line, they can be brought together and the points of contact easily established. To decorate a room we require wall pictures, Persian carpets, tables and chairs. They are to form parts of the one whole. Still they are to be made separately, in different places and by different artists. The warp and the woof, which are interwoven together to form the same fabric, pass through different processes of manufacture. Their compatibility with each other is determined after they have nearly reached perfection. So with man and woman. Psychologically also the stage when a human being takes to worldly affairs and naturally seeks the company of the opposite sex comes later in life. Prof. William James says: "In all pedagogy, the great thing is to strike the iron while hot, and to seize the wave of pupil's interest in each successive subject before its ebb has come.....There is a happy moment for fixing skill in drawing.....Later introspective psychology and the metaphysical mysteries take their turn; and *last of all the drama of human affairs and worldly wisdom* in the widest sense of the term."

Woman has a different outlook on life from man. Between all women there is a peculiar community of interest, which they cannot have in common with men. This is clear from observation. Even in schools where boys and girls are educated together, girls very naturally mix more freely with each other. Even when a woman has taken a man to be the partner of her life, she finds it necessary to communicate certain feelings and sentiments to her womanly companions alone. Thus woman only can be a true guide and friend of a girl and a man alone can be a true psychological teacher of boys. The moment we establish schools for the co-education of children, we disregard this important fact of educational psychology and thus hamper our progress.

The Hindu Shastras speak of four stages of man's life. These relate to growth, adolescence, perfection and decline. They also say that these stages differ in man and woman. In man adolescence is complete at the age of twenty-five and perfection at forty. Woman attains them at sixteen and twenty-four respectively. True to this principle, the Aryan Shastras have laid down that a girl of 16 should marry a man of 25, one of 18 a man of 36, one of 20 a man of 40 and a woman of 24 a man of 48.

This truth is acknowledged by our western brothers also. Says Havelock Ellis: "The evolution of puberty is more precocious in girls than in boys, being both begun and completed at an early age."

Dr. Walling thus delivers himself on the subject: "Although she starts from the same point as man, she develops in a manner peculiar to herself and reaches earlier the last stage of her development. Everywhere puberty is earlier than in man. However this may be, man

is still evidently in his childhood and subject to the laws that govern that age, while woman already experiences a kind of new life, and finds herself, perhaps with astonishment, provided with new attributes, and subject to a new order of functions, foreign to man and hitherto foreign to herself."

What does all this mean? It means decidedly and distinctly a shorter period of schooling for woman, and hence difference in the courses and methods of study.

Not only does nature provide shorter schooling period for woman, but she demands that woman should be treated in a different way from man. The maternal function of woman is the most delicate and noblest of her duties. On no account should our educational courses be allowed to meddle with that. To help nature in her course Mr. Clarke in his "*Sex and Education*" advises periodical rest for girls. Ellen Key advocates for all young women a year of compulsory "service" analagous to the compulsory military service for man. During this period a girl should be trained in rational house-keeping, in the care of the sick—especially that of infants.

It is clear that co-education must fail to satisfy these demands of nature.

The great Aryan law giver, Manu, has laid down that boys and girls while under education, should not be allowed to be together, for *Darshana* (evil sight) and playing together constitute breaches of the great vow of *Brahmacharya* (celibacy—chastity). This idea finds an echo in a statement in the *Sexual life of the child* that co-education leads to a primitive awakening of the sexual life.

Toleration is the keynote of modern life. It is wrong to excite bitter feelings between different religions. So it is wrong to try to pit one type of civilization against another. Still in the interests of truth itself, sometimes it is necessary to be out-spoken. To some of us Indians it seems that modern western civilization is not favourable to the fostering of the virtue of chastity. That has been the view even of some westerns. The historian Gibbon writes: "Although the progress of civilization has undoubtedly contributed to assuage the fiercer passions of human nature it seems to have been less favourable to the virtue of chastity." Westermarck acknowledges: "Irregular connections between the sexes have on the whole exhibited a tendency to increase along with the progress of civilization." There are those who think that co-education is one of the factors contributing to this and their view seems confirmed by the vast amount of sex literature every year poured out of the Western press.

Much praise has been bestowed on the method of taking a wife obtaining in Europe. The partners of life should choose each other. I do not consider the system now prevalent in India to be an ideal one, still I cannot admit the western method of courtship to be desirable. The reports of the Divorce courts prove how faulty the system is. I have no doubt that co-education is one of the contributory causes of the unhappy marriages of the west.

Co-education moreover brings about false ideas of equality between man and woman and lends to keen competition between the two. It is wrong to say that one sex is absolutely superior to the other. But

neither are they equal. Each has its own proper sphere and in that sphere each is superior to the other and rules it.

I have tried to show that co-education has produced undesirable results in the west, that it is faulty both physiologically and psychologically and that its introduction here would unnecessarily irritate the common people. I shall be glad if others take up the question and discuss it from other points of view.

A SHIKARPURI.

THE NEW PROGRAMME FOR THE EXTENSION OF PRIMARY EDUCATION.

SWIFT has somewhere observed: "Whoever could make two ears of corn or two blades of grass grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together." The principle underlying the above quotation deserves to be borne in mind by those who are earnestly endeavouring to help the spread of primary education amongst the masses. By all means let us bring education within easy reach of the agriculturists, who form over 70 per cent. of the Indian population; but the object must always be to make them *better agriculturists*, and never to divert them from their fields to industrial, literary or such other pursuits. The lamentable illiteracy, at present reigning amongst these classes, is to be reduced, not with a view to making them better carpenters or tailors, much less equipping them for the learned professions. They are to be given, or ought to be given, exactly that sort of education which will enable them to appreciate modern methods of agriculture: why and how proper implements are to be made use of, what manures are to be used for different kinds of soils and for different crops, and so on. Above all, by giving them sufficient knowledge of the three R's., they are to be enabled to read, write and cipher, and thus saved from the clutches of the village *Sawkar*. Then, and then only, the farmer "Can make two ears of corn grow upon a spot of ground, where only one grew before."

Let us now proceed to see if the measures already adopted, or shortly to be adopted, are calculated to serve the purpose, indicated above and are commensurate with the expenditure involved. Only the other day, on the eve of his departure, Lord Willingdon reviewed his five and-a-half year's stewardship of this Presidency, and in his review education occupied no mean place. Amongst the measures mentioned by His Excellency, the following two are of special importance, namely:—

- (1) The opening of nearly a thousand new schools;
and
- (2) The provision of schools for every village of a thousand inhabitants and subsequently for every village of 500 inhabitants.

Now these are extremely desirable things in themselves. But mere opening of schools year after year will hardly suffice. It will be necessary to secure two additional things simultaneously; (a) a large attendance of the children of the agricultural classes at these schools, and, what is perhaps of greater significance, (b) a special curriculum to meet the special requirements of the classes concerned. In the present article I intend to restrict my remarks to the first of these points.

What measures, then, are likely to secure a sufficiently large attendance? Two obvious remedies appear to be *inducement* and *compulsion*. Unless either of these is made use of the laudable object of opening new schools is likely to be frustrated. The process of opening fresh schools in rural areas has been going on fairly steadily for the last ten years and more; and the officers, who have to do with the selection of villages most fitted to receive the boon of education, have already begun to find the task extremely trying. Everybody, who has the smallest conception of rural life, will readily admit that a farmer's child, even of the tender age of four or five, is no mean asset but is of direct economic value. Now we want these children to attend schools during a number of years, and this means depriving the parents of an amount of labour in their field operations, which it would be difficult for them to replace. The *Times of India*, in its editorial on Lord Willingdon's administration, rightly remarked in this connection: "If, however, we are to force parents to send their children to school, as ultimately we ought and must, we equally have to see that the education imparted repays the parent for the economic loss of the child's labour during the school-going period."

It is, therefore, essential that the farmer should be made clearly to recognise that if he is to send his children to school, he will suffer no pecuniary loss. If these children receive education at school, befitting them for their subsequent career, they will more than make up for the monetary loss suffered by the parents during their school-going period. But this prospective gain will not appeal much to parents; and they will have to be offered some inducement to spare their children from the fields. Government have at present restricted the principle of "free and compulsory primary education" to municipal areas, and even there it is not to be universally applied. As long as they are not inclined to use compulsion in the case of rural areas, we have to depend upon the other remedy, inducement. We have, therefore, to concentrate our attention on that point. What should be the way or ways of inducement? One of them would appear to be to offer the agriculturists direct monetary help, so that they may engage outside labour in lieu of that of their own children. In that case the expenditure would be prohibitive. But even supposing that Government were to offer such help, the farmers are not likely to be able to secure outside labour in these days of high wages and dearth of labourers. Even the adult amongst the working classes cannot resist the temptation to secure high wages in big industrial cities; and he often migrates to them, neglecting his own fields. In these circumstances, it would be a greater hardship if the farmer were deprived of the labour of all his children. We must, at any rate, leave a sufficient margin for field-work; and inducement may be offered to secure only those children who can be reasonably expected to attend school.

Any programme, therefore, for the opening of new schools, will have to take into account amongst many other requirements, the question of the inducement to be offered to parents. The obvious ways appear to be these:

- (1) Supply of books, slates, writing material, etc., to children;
- (2) Supply of clothes;
- (3) Supply of corn; and
- (4) Direct monetary help to parents.

Of these the last may be used in extremely needy cases. All these and similar other inducements, will involve considerable expenditure.

But if we desire the prospective schools to be schools in *reality*, half measures will not do ; and Government will have to consider the question of inducement seriously. Otherwise, schools opened in particular villages, simply because they happen to contain a thousand souls, will have to be shifted to another village perhaps the very next year for want of decent attendance ; and this process will go on from year to year. At present the number of schools opened every year in a particular district is no doubt modest. But modest though it is, those who have to accomplish the task,—I mean the several Deputy Educational Inspectors—find it sufficiently trying. It would be no exaggeration to say that these schools have, at any rate in the majority of cases, to be thrust upon an unwilling population. The villages have hardly any enthusiasm in the matter ; and even if they have any at the commencement, it soon cools down, with the inevitable result that the Deputy Inspector has to take steps to shift that school-master with all his paraphernalia to another locality, perhaps even less enthusiastic. Such a state of things is scarcely encouraging for the healthy growth of primary education ; but we have boldly to face the situation as it is and it is no use disguising the facts. Villages willing and earnest in the matter of securing educational facilities have got them already : and a programme on a vast scale, without any provision for due inducements, would perhaps prove a venture. I am by no means averse from opening new schools, whenever and wherever genuine demands for the same are made. But it would be sheer waste of the rate-payers' money, of whom over 70 per cent. are agriculturists themselves, to establish schools in localities not prepared to profit by them. The best thing would be, so long as compulsion is not to be adopted, to allow schools to grow *automatically* and not by any artificial pressure. The progress in that case would be very slow no doubt ; but more likely to be permanent. But as Government have decided to undertake a comprehensive programme, it is to be hoped that the scheme will include some substantial inducements to the agricultural classes so that it may have a fair chance of success.

V. V. NATEKAR.

THE TEACHING OF ALGEBRA.

WHATEVER its credentials in the college curriculum, there is a widely prevalent but undesirable tendency to relegate Algebra to the back-ground of the school curriculum. Geometry with its practical and theoretical, its pompous retinue of constructions, riders, corollaries and what not ; Arithmetic with its alligation, brokerage and duodecimals often amaze the bewildered pupil. Algebra always carries the least number of marks ; it commands the fewest periods ; the History graduate may be asked to teach it as an unimportant subject.

One reason, perhaps, of this studied neglect and unpopularity is its simplicity. The Honours Mathematician finds no material for the "display" of his high erudition, there being no locus propositions of eternal difficulty to prove, nor any examples in stocks and shares to solve for the benefit of his admiring students. In fact, in answer to an enquiry as to the pedagogical value of Algebra, the writer was solemnly assured that it was specially appended, only to help the boys to pass their matriculation more easily.

In the face of this self complacent attitude, we may well pause and ask in all seriousness—what is the real pedagogical function of Mathematics? and from this angle of vision, critically estimate the position of Algebra. Above all the other functions of Mathematics is the cultivation of a specific habit of close reasoning and systematic procedure. To this function, Algebra contributes in a pre-eminent degree. Given certain data, certain principles being known, the result is bound to follow or else we may confidently look out for a flaw in the reasoning process—that is its guiding axiom; no probabilities, no approximations, no averages.

From the basic little x and y of the first chapter, we go on building, slowly indeed, but without pause or break making steady progress. This great lesson as to how a huge edifice can be constructed out of little pebbles dexterously manipulated, is one that is of the utmost moral value in later life. In Geometry, the basic data are far more varied and confusing.

At present, the methods followed in the treatment of these two branches differ diametrically; an abnormal importance is being attached to the general propositions of Geometry, while as regards their application, both teacher and taught fight shy; Algebra, on the contrary, is nothing but one string of examples, with but few general propositions. The result is that the boy knows only just that which he has learnt in the class; give a twist, just change the letters and the boy is all at sea. It is therefore imperative, that in Algebra, the various examples should be so related that they should flow from some common fount. It is highly desirable that the various formulæ be regularly named and numbered as in Geometry, and be thoroughly drilled into the pupils. In the solution of examples the quoting of these authorities should be firmly insisted on. We can never devote too much attention to getting these propositions thoroughly understood and drilled into the memory like multiplication tables; for the rest is nothing but a wide application of these, only steadily increasing in complexity. The writer has found by experience that whole exercises can then be solved mentally without the aid of paper and pencil. While there is always much fuss about mental Arithmetic, the rich possibilities of 'mental Algebra' have yet to be discovered and appreciated.

Once the general propositions are thoroughly mastered, the teacher must firmly ward off the temptation to 'jump'; for, with the average students, mastery is still far from being completely realised, and we must needs be careful lest the pace is hurried to the detriment of the class as a whole. Therefore the gradual increase of complexity in the application must, especially at the beginning, be almost imperceptible. The student must be made to feel that he is treading on homely ground; a return, now and then, to the original fount is specially to be recommended. If the task sorely tries the patience of the mathematical expert and makes the topmost boys chafe and fret at the tardy progress, the reward too is sufficiently compensating. That usually noticeable gulf between the scholar and the dullard can be bridged, to a certain extent, by a judicious distribution of questions; every new complexity can be addressed to the scholar, while its application in a number of parallel cases, may be reserved for the backward. No other subject offers such a rich field for a thorough and successful

application of the Herbartian methods. The whole class from top to bottom can be always held in a state of tension, there being such an active and lively 'give and take' there is always something within the reach of everybody. The joy of a correct answer, the sense that the dullard can do a thing almost as well as the others, is a strong stimulus. It creates in him a sense of confidence and thus puts him on the highroad to success. When we see the blankness and gloom that pervades the majority of our Indian pupils, the value of such confidence can never be too much emphasised.

A word about correlation. A healthy correlation can and should at all times be established in the various branches of Mathematics. We build Algebra on the concrete foundation of Arithmetic and the consummation is reached in Geometry. Certain teachers always display a horror, an aversion as from an untouchable, when they come into contact with the easily intelligible Algebraic methods. Woe befall the student who dares to use them in his Arithmetical solutions, in the classic examples of the 'mixing of teas' for instance. After all, the three branches are but complementary and should never be treated as so many water-tight compartments.

I beg to append the notes of a specimen lesson, which, I trust, will illustrate my position.

- Class—V. Subject—Algebra, Period—45 minutes.

Lesson I.

I. *Aim* :— To teach the formula—

$$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3.$$

II. *Preparation* :— Q. How did you find the square of $(a+b)$?
[ans. expected—by multiplying $(a+b)$ and $(a+b)$]. There $(a+b)$ was raised to 2, now if we want to find out the cube of $(a+b)$, what will be the factors?

III. *Presentation* :— B.B.

MATTER.	METHOD.
$(a+b)^3 = (a+b)(a+b)(a+b).$ $= (a+b)(a+b)^2$ $= (a+b)(a^2+2ab+b^2).$ $= \left\{ \begin{array}{l} a(a^2+2ab+b^2) + b(a^2+2ab+b^2) \end{array} \right\}$ $= a^3+2a^2b+ab^2+b^3.$ $\quad + a^2b+2ab^2.$ $= \underline{a^3+3a^2b+3ab^2+b^3}.$	<p>Elicit.</p> <p>Ask the formula.</p> <p>Ask class to work out.</p> <p>Point out that the formula must be written in an orderly way with decreasing powers of 'a' and rising powers of 'b'.</p> <p>Draw attention to the fact that all the terms are positive.</p> <p>Get class to repeat and learn the formula.</p>

MATTER.	METHOD.
IV. <i>Application</i> :—B.B.	
The formula is an identity.	Q. What term is 'a' in the formula? What is 'b'?
	[ans. expected—any term.]
	Then we may put any other term for 'a' and 'b'.
Put c, m, x, y for a	Ask class to apply the formula.
„ d, n, y, z for b	(Work to be done orally; the backward students to be made to repeat the answers).
etc.	Now, we have taken "x" as the co-efficient in all cases; must we take "x" only?
	Ask class to apply formula.
Put 2c, 2m, 2x, 3p for a	Now, may we not put more than one term for 'a' + 'b'?
„ d, 2n, 3y, 4q for b	Teacher to solve on black-board; class to take down.
etc.	
Put $\overline{m+n}$ for a	
„ p for b	
We know by formula (No.—)	
that $(a+b)^3 = a^3 + 3a^2 b + 3a b^2 + b^3$	
Let us put $\overline{m+n}$ for a.	
p for b.	
Then— $(\overline{m+n+p})^3 = (m+n)^3 + 3(m+n)^2 p + 3p(m+n)^2 + p^3$	
$= \left\{ \begin{array}{l} m^3 + 3m^2 n + 3m n^2 + n^3 + 3m^2 p + 3m n^2 p + 3n^2 p + 3m p^2 + 3n p^2 + p^3 \end{array} \right\}$	
Point out that we may as well put	
$\frac{m}{n+p}$ for a	
$\frac{n+p}{n+p}$ for b	
Emphasise that in all examples of the type, this same method must be used; the first two steps are generally omitted; that should not be allowed; the answer is of less importance than the method.	
Finish off by selecting two typical examples for home-work.	
Lesson II.	
Make class solve as many examples as possible from the text, entirely orally.	
<i>Application could</i> :—We substituted 3 sets of values for 'a' & 'b', changing first the letter, then the co-efficient and lastly the number of terms; What have we kept constant? [The sign] Let us change that as well. Put 'a' as it is; (—b) for 'b' get class to deduce, to repeat and learn.	

V. Association and Generalization :

We know :—

$(a+b) = a + b$	I	} Make class perceive by judicious questioning that :—
$(a-b) = a - b$	II	
$(a+b)^2 = a^2 + 2ab + b^2$	III	
$(a-b)^2 = a^2 - 2ab + b^2$	IV	
$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$	V	
$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$	VI	
		(1) Number of terms = Index + 1
		(2) The last terms have the same index.
		(3) $a-b$ differs from $a+b$ only in alternate change of signs : $a+b$ having all signs positive.

About four more lessons at least should be reserved for applications of these two formula which have been learnt. In a good text book, each exercise contains four or five types ; solutions of at least a couple of examples from each type, rather than a blind serial order, should be set. While solving examples in class, it is often found that the quicker scholars dash off a particular example in a short time and indulge in audible whispers amongst themselves, till the rest of the class has finished and a new example is set. This can be very well obviated by giving an order "solve examples 15 and 16" rather than merely example 15. By the time the quick scholar has finished his two questions the dullard has finished his one ; thus, while the interests of the average boy are safeguarded—which, of course, is the teacher's paramount duty—the scholar too gets special attention.

N. G. NARALKAR.

PUBLIC INSTRUCTION IN MADRAS.*

Population, 41,405,404, Males, 20,382,955. Females, 21,022,449.

General.

PUBLIC institutions had an accession of 1,165 to their number and 41,907 to their strength, the increase representing 3.7 and 2.7 per cent., respectively. The proportion of male and female scholars to the respective population was 6.6 and 1.6 per cent., respectively, and the percentage of all scholars under instruction to the total population was 4.1. The total expenditure during the year from all sources amounted to Rs. 226.4 lakhs as against Rs. 216.8 lakhs in the previous year. The total direct expenditure advanced by nearly Rs. 4 lakhs and that classed indirect by about Rs. 6 lakhs. The Government of India sanctioned a further recurring grant of Rs. 4 lakhs for the improvement of training and pay of teachers.

Collegiate Education.

The number of Arts Colleges for both men and women remained the same (34) with 7,989 pupils, a slight increase ; of this total 383 were undergoing the B.A., (Honours) course, a slight decrease. There were in Arts Colleges 210 female students, 15 in Colleges for men and 195 in those for women, of whom 108 were in Queen Mary's College for

*Report of the Director of Public Instruction in the Madras Presidency, 1917-18.

Women, Madras, (in which the Senior B.A., class was opened during the year) and 78 in the Christian College for Women.

Several important additions to, and alterations in, the University Regulations were made during the year. Special University lectures were delivered by Prof. Oliver Elton on Literature and by Dr. P. C. Ray on Chemistry. In all Arts Colleges prominence was given to the *tutorial system*, which is working satisfactorily.

Secondary Education.

The number of secondary schools rose from 345 to 355 and the total strength of public secondary schools for boys rose from 136,141 to 140,306 or by 3.05 per cent. The number of teachers in secondary schools rose from 5,655 to 5,830 or by 3.09 per cent. The number of graduate teachers trained in 1917-18 was 89. The total direct expenditure rose from Rs. 38 lakhs to Rs. 39 lakhs : of this expenditure fees contributed 76 per cent., private funds 14 per cent. and public funds 10 per cent.

The syllabus of studies for the Secondary School Leaving certificate was lightened during the year to enable students to pay more attention to the study of the vernacular and classical languages. There was a slight increase in the number who sat for this examination ; 5,638 appeared for the first time and 3,753 supplementally.

Elementary Education.

The number of public elementary schools for boys was 29,864, a net increase of 981 or 3.39 per cent. This increase was the result of the policy of taking over under public management badly managed aided schools and of opening with public funds new schools in villages hitherto unprovided. The total number of pupils attending public elementary schools was 1,259,041, an increase of 2.26 per cent. The total expenditure on primary schools for boys rose from Rs. 58.32 lakhs to Rs. 60.10 lakhs, towards which Government contributed 73 per cent., subscriptions, etc., 15 per cent., and fees 12 per cent. The total number of teachers employed in public elementary schools increased by 1,843 or 3.75, per cent. The total number of trained teachers to the total number of teachers was 435 per cent. The minimum pay of trained teachers in boy's school, under public management was raised to Rs. 11 per mensem and the rates of teaching grants, payable in behalf of trained teachers in elementary schools, were also raised.

Female Education.

There was a satisfactory advance in the education of girls, the number of schools intended for them having increased by 153 and the total number of girls under instruction by about 15,000. The strength of the three colleges for woman rose from 151 to 195. Almost 8,000 girls were reading in non-European public secondary schools. The model school attached to the Government Hobart Training School for mistresses, Royapetta, was raised to the secondary grade with a reorganized staff. Elementary schools rose by 168 in number and by about 9,100 in strength. In all the elementary schools for girls 5,819 teachers were employed, of whom 57 per cent. were trained, the percentage being highest (82) in the Nilgiri and lowest (33) in the Malabar district. During the year Government sanctioned subsidies for the opening of 244 girls' schools and for raising the minimum pay of teachers to Rs. 12 per mensem,

In some of the important Government secondary girls' schools arrangements have been made for the delivery by paid lecturers of lectures on Hygiene and First Aid.

Training of Teachers.

On the rolls of the Teacher's College, Saidapet, there were 98 students (including 6 women) at the close of the year, a slight decrease which is only apparent. During the year a second Training College was opened at Rajahmundry which, starting with 50 students, has fully showed the need for a separate Training College for the Telegu country. In addition, a class for training graduate teachers was started in connection with St. Joseph's College, Trichinopoly, the cost being met by Government. During the year, 393 and 55 teachers of the secondary grade qualified for probationary and final teachers' certificates, respectively, and 1,815 and 591 teachers of the elementary grade for the respective certificates of their grade. It is significant that 1,909 of the students who had been trained are reported to have obtained employment as teachers. It is under contemplation to start additional training schools both for masters and mistresses. No progress was made during the year either towards the construction of buildings for any of the training schools or towards the expansion of the hostel system.

CORRESPONDENCE.

TO THE EDITOR.

SIR,—I have read with great interest the article on "Correction of Written Work" and Mr. Bhojwani's letter referring to it which appeared in *Indian Education*. Till boys have been made to reproduce in their own words what they have been taught, I do not think the lesson has been complete. A teacher who orally explains a thing to the class or demonstrates it on the black-board and then thinks he has done all that is necessary is satisfied with very little indeed. In many cases I have received smart oral answers from certain boys who have failed to give satisfactory answers in writing to the same questions. It has often been noticed that a boy may demonstrate a proposition in Geometry on the black-board but commit many mistakes when asked to write it out. Therefore written work is of the greatest importance.

It is, of course, desirable that all papers should be carefully corrected although corrections in themselves are sometimes of little value, because certain pupils often fail to understand why particular corrections have been made and others do not even scrutinize the corrections at all. But, in holding that every lesson should be followed by written work am I not placing an unbearable burden on the shoulders of the master? A schoolmaster usually takes five periods a day and, assuming there are on an average 30 boys in each class, he will have 150 papers to correct daily. This is a task which a teacher cannot accomplish, in addition to his other work, in the limited time at his disposal. Further, each boy has his peculiar defects and each paper requires individual attention and this makes the teacher's work all the harder.

I have found that the following plan works well and lessens the teacher's burden while safeguarding the pupils' interests. I keep a Log-book in which the boys' names are entered. After each lesson I call

for ten papers at random from each class. These I return carefully corrected and the names of the owners are noted in the Log-book. I can thus manage to see each boy's written work at least once a week. As there are usually backward pupils in every class their papers may be examined more frequently. I am convinced that this method works admirably and it has the advantage of making written work possible for all lessons and ensuring that the teacher is not overwhelmed with correction of papers.

I shall conclude with a few words on how papers should be corrected. The use of symbols and abbreviations should be avoided. If each teacher has his own symbols and signs the student will have to keep a list, to which he is likely to refer very seldom. To devise a code of symbols and make all the teachers of a school use it would be very difficult for the headmaster. The best method of correction is the simplest and the commonest. It is not enough to underline mistakes, the corrections should be written out in the ordinary way. Finally, if the construction, etc., used by the pupil is retained, as far as possible, the number of corrections will not be very great.

As the correction of written work is an important part of a teacher's duty, may I invite others to tell us their experience ?

Yours, etc.,

J. C. CHATTOPADHYAY.

TO THE EDITOR, "INDIAN EDUCATION."

SIR,—In these days when improvement of education and of educational expenditure is the order of the day it may interest your readers to know with what gigantic strides the United States of America is advancing in this direction. A fresh education bill, known as the "Smith Bill", provides for a federal aid to the various states of a hundred million dollars annually, distributed as follows :—

- 7,500,000 dollars annually for the removal of illiteracy ;
- 7,500,000 dollars annually for the Americanisation of foreigners ;
- 50,000,000 dollars annually for the equalisation of educational opportunities within the several States, particularly in rural and village schools ;
- 20,000,000 dollars annually for co-operation with the States in the formation of physical and health education and recreation ;
- 15,000,000 dollars annually for the extension and improvement of the facilities for the preparation of teachers for public schools, and particularly the rural schools.

Yours truly,

A. S. VAKIL.

THE NEWS OF THE MONTH.

BOMBAY.

AT a meeting of the Bombay Legislative Council last month, the Hon'ble Sir Ibrahim Rahimtulla made a long and interesting statement on introducing the education head of the Budget. The total

expenditure for the present year is estimated at Rs. 1,32,06,000, an increase of Rs. 20,00,000 on last year. In regard to primary education in urban areas Government have already announced their intention of giving grants, on the basis of half the total cost per annum and of considering the question of making liberal grants to those municipalities which may desire to introduce compulsion, but are prevented from doing so owing to financial difficulty. To municipalities which intend to make education free, without making it compulsory, Government have also decided to make grants on condition that additional accommodation, staff and equipment are provided to meet the increased numbers and sufficient funds are raised by the municipalities themselves to meet their share of the increased expenditure. In rural areas Government propose to deal with the problems of illiteracy by opening almost 500 schools in villages with a population of over 1,000 which have been hitherto unprovided. The next step will be open schools in all villages with a population of between 500 and 1,000. Rs. 3 lakhs are to be expended in the present year on the extension of primary education. The revised pay of untrained primary teachers involves an extra expenditure of Rs. 4½ lakhs and of trained teachers an expenditure of almost Rs. 14½ per annum. In addition, all primary teachers are granted war allowances which in the current year are expected to cost Government over Rs. 15 lakhs. With regard to the training of teachers Government have passed a scheme for opening 25 training classes throughout the Presidency which will turn out 1,300 teachers annually. The estimated cost is Rs. 3 lakhs recurring and Rs. 26,000 non-recurring. The appointment of an inspector of training schools on a salary of Rs. 300-500 has also been sanctioned.

With regard to secondary education the Budget contains provisions for (1) a scheme for the teaching of English in Standards V—VII in primary schools, Rs. 8,000 ; (2) opening of new Government high schools, Rs. 1,00,000 ; (3) medical inspection of school children, Rs. 55,000 ; (4) revision of the pay of assistant masters and mistresses and Assistant Deputy Educational Inspectors. The first measure is experimental and will only apply to about 20 schools in which English will be taught from V to VII vernacular standards to children who may desire to learn it. If the experiment proves a success the scheme will be extended as far as funds permit. The appointment of five doctors on Rs. 500-50-800 per mensem each, with necessary clerical and menial establishment, is part of the scheme for medical inspection of schools sanctioned in 1914, but retarded from operation owing to the financial situation created by the war. As regards collegiate education the attention of Government has been drawn to the growing demand for higher education and the increasing number of applicants who cannot find accommodation in existing colleges. It is expected that measures on the following lines will provide a solution : (1) increasing accommodation in the Government Arts Colleges ; (2) establishing new Colleges in suitable centres ; (3) raising the maximum limit of the grant admissible to Colleges. In connection with the last item Rs. 30,000 is set aside to meet the additional charge. In view of the useful work done by the Victoria Jubilee Technical Institute and the great benefits that one anticipated from the development of its scope Government has raised its grant of Rs. 1,00,000 by Rs. 25,000.

At a meeting of the Senate of the Bombay University held early in month it was resolved that the pass examination for the degree Bachelor of Arts be held twice a year, commencing on the Monday following the fourth Monday in March and on the first Monday in October. The honours examination is to be held only once a year, in March, previously. Permission was given to the Principal of the New Pool College to increase the number of students in the Intermediate Arts Class from 120 to 200, and the Principal of the Sarvajanic College, Surat, was empowered to raise the number of students admissible in the First Year Arts and the Intermediate Arts Classes from 100 to 200 and 60 to 100, respectively. Both colleges have satisfied the University that there is now sufficient accommodation to admit the increased numbers.

At a subsequent meeting of the Senate, on the motion of Dr. Harold H. Mann, it was resolved that "the Senate record their opinion that the college which the Deccan Education Society proposes to start in the Southern Maratha Country be provisionally affiliated to the University for the first and second years of the Arts course for a period of three years commencing from the 20th June, 1919, subject to the following conditions:— (1) That the number of students in the first year should not exceed 25 and the number in the second year should not exceed 150. (2) That the Syndicate should inspect the college each year, and report to the Senate in case they find the condition of the college in any way unsatisfactory. (3) That the Deccan Education Society agree to provide a new college in new and suitable buildings on the site selected between Sangli and Miraj within three years. (4) That the plans of such new college and connected buildings be submitted to the Syndicate for approval before construction is undertaken."

A public meeting was held in Bombay, to express grief at the deaths of Prof. H. G. Limaye and Mr. H. N. Apte. Mr. K. Nataraj occupied the chair and the meeting was addressed by Prof. P. A. Wadia, the Hon'ble Mr. R. P. Paranjpye, Principal P. Anstey, Prof. Takakha and others. In the death of the former the University and the Fergusson College have suffered a severe loss. Prof. Limaye was a man of high scholarly attainments and a recognised authority on Maratha history. Mr. Apte had won a great reputation as a Marathi novelist and had rendered signal service to the cause of female education.

Presiding at the annual prize distribution of the Elphinstone High School, Bombay, the Hon'ble Sir Ibrahim Rahimtulla, in his address to the boys, said it was a matter of peculiar gratification to him to have been invited to preside on the occasion, as his connection with the school began forty years ago as a student. He commended the spirit of self-sacrifice which was shown by the prize-winners in foregoing their hard-won prizes in the cause of their country and their Empire. He said that in the progress of life they would often be tested in the spirit of self-sacrifice and he hoped that the noble example which the prize-winner's had set would then serve to point out the path of duty.

BENGAL.

Presiding at the prize distribution of the Sibpore Civil Engineering College, His Excellency the Governor said the Bengalee child hitherto was given no chance of developing any aptitude for mechanics which he might possess. Something must be done to develop the boy's aptitude.

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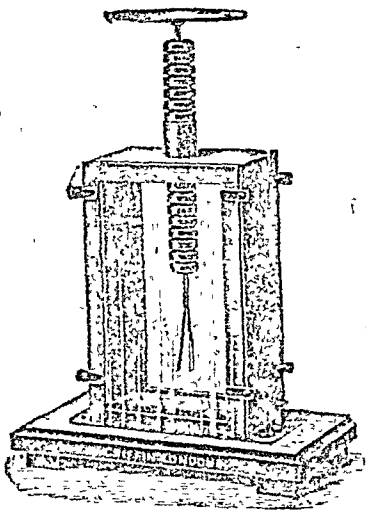
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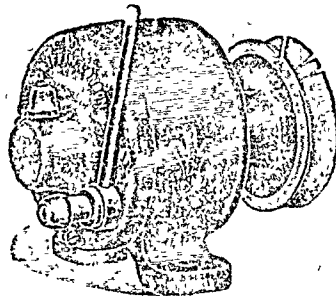
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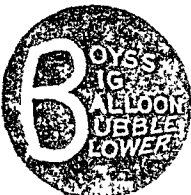
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VOL. XVII.]

JUNE, 1919:

[No. II.

EDITORIAL NOTES.

MR. HARTLEY, the retiring Principal of the Royal College, Colombo, writing in the College Magazine, says that Ceylon boys are more teachable than English, more eager to learn and more respectful towards their teachers. On the other hand, he thinks that the best English boys show an independence of thought which is stimulating to teacher and taught alike and that this characteristic is sadly lacking in Ceylon pupils, with whose brains, however, no fault can be found. In a paper on "Indian and English Secondary Schools", read before the Madras Teachers' Guild, Mr. Douglas compares Indian and English, or rather Scottish, schoolboys and the two comparisons bear a striking similarity. Mr. Douglas says "in point of view of mental alertness, aptness for study, eagerness to learn and powers of memory" the Indian schoolboy is fully the equal of his fellows in Scotland. The fact that the Scottish schoolboy learns school with a maturer and more developed mind than the average Indian boy implies no discredit on the latter. The Scottish boy leaves school considerably older than the Indian, has the advantage in teachers and is not so obsessed with the idea of passing examinations. Without entering into a discussion of the proper school-leaving age or attempting a comparison of English and Indian teachers, we may say that for various reasons, mainly social and economic, Indian students are inclined to regard the passing of examinations as the goal of education and this inevitably results in inordinate cramming and a stifling of originality. Many Indian teachers are also ridden by the fear of examination results, often against their better judgment. It is unfortunately true that the man whose "notes" are most useful for examination purposes is considered a better teacher than his more enterprising colleague who strives to stimulate thought, to foster independence of judgment, to inculcate a love of truth for its own sake. Indian teachers would do well to keep the attention of their students as much as possible away from

examinations and to cultivate the "questioning spirit" in their classes. According to good judges the right material is to hand and it depends largely on the teachers whether it is turned to the best account.

* * * * *

The Indian student seldom cherishes a veiled disrespect for his teacher as one who is to be pitied for having nothing better to do. It is generally agreed that the Indian boy is more amenable to discipline than the English and hence failure to maintain discipline is an infrequent source of inefficiency in this country. This being so we cannot condemn too strongly the attacks that are sometimes made on innocent and conscientious teachers in certain sections of the Indian press. These are all the more regrettable in that they are usually made for reasons other than educational. Attempts to make pupils think that their teachers are unsuitable or incompetent have an unhealthy influence, not only in encouraging disrespect and indiscipline in particular institutions but also in lowering the dignity of the teaching profession in the eyes of parents and the general public. Everyone knows that among teachers there are to be found men who have missed their vocation, but this might be said of any other profession and does not warrant the attacks, usually anonymous, which we have already deprecated. Those who have the best interests of their country at heart should beware of lowering pupils' respect for their teachers or parents' admiration for education itself.

* * * * *

The recent report on Public Instruction in Travancore, (1917-18) which we summarize on another page, contains certain items of more than passing interest. On 30th November, 1917, the centenary of English education in the State was fittingly celebrated. The demand for this kind of education is becoming more insistent as the years go on, and it was mainly owing to the willingness of the people to contribute towards the initial as well as the recurring expenditure involved in the opening of higher classes that marked development was possible in a number of schools during the year under review. In the sphere of collegiate education there was a satisfactory progress and the results at the University examinations were exceptionally good. As regards primary education, steady progress was maintained in all directions throughout the year, and this is not surprising considering that over 70 per cent. of the net expenditure

on education was made under this head. Nearly 12 per cent. of the total population were attending school and the percentage of pupils of school-going age who were in attendance rose to over 82—more than light times the average for the whole of India. The Durbar and people have every reason to feel satisfied with the progress of education in the State and we eagerly await the report of the Commission which is at present considering the question of a separate University for Travancore.

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There is no subject, not even religion or politics, on which the ordinary man considers himself more competent to express his views than education. But judging from what one hears in ordinary conversation or reads in current papers and magazines, there is much ill-informed opinion on the subject of education, which may possibly carry more weight in certain quarters than it deserves. For instance, our attention has been drawn to a statement in a contemporary to the effect that professors in Indian Colleges are chiefly concerned in turning out large numbers of clerks and are oblivious to the true aims of education. This is a gratuitous statement and no evidence is advanced in its support. From a fairly wide acquaintance with Colleges and Professors we can confidently assert that no such tendency has ever been detected or brought to our notice. No doubt many college students eventually become clerks but yet the education given at our Arts Colleges is “liberal”, at least in the sense that it is given, not in the interests of the clerical or any other profession but, as a preparation for life in its wider aspects—for useful and intelligent citizenship.

EDUCATION IN ENGLAND.

THE UNIVERSITY QUESTION.

IN my last communication I mentioned various matters connected with our English Universities and pointed out that the position of the teachers in these institutions was rendered very difficult by reason of the small salaries which had hitherto been paid. The newly issued estimates for the year ending March 31st, 1920, promise an increase of over £600,000 in the State grant for university purposes, bringing the total up to £945,000. In addition there is an increase of about £160,000 in the money allocated for scientific and industrial research and kindred activities. This increase is not only welcome but absolutely necessary in view of the tasks which are to be laid upon our Universities in the near future. Among these tasks one of first importance will be the training of teachers. More generally it is expected that a great

demand will presently arise for extended facilities in University studies. The Right Honorable Arthur Henderson, Secretary to the Labour Party, has written to the press pointing out that the development of public secondary education has led to a remarkable growth of interest in adult education among the organised working classes. It has led further to a widespread demand that Universities shall provide education, not only for students who can afford to spend three or four years in a University, but also for men and women who are working during the day in the factory or the mine and who desire to pursue in their leisure hours the studies which make for the development of personality and for the growth of intelligent citizenship.

INCREASED ESTIMATES.

The new estimates show a great increase in every branch of expenditure and the total for Great Britain and Ireland is over forty-one millions, showing an increase of nearly sixteen millions on the grants for last year. The English estimates alone exact thirty-one millions, being over twelve and-a-quarter millions above those of 1918-1919. The main increase concerns elementary education and is due to the necessity of making provision for the working of the new Education Act. A special increase is due to the institution of a new system of paying grants in aid, whereby it becomes necessary to provide certain sums to be spent during the present year which under the old system would have come under the estimates for next year. The amount allocated to secondary schools is regarded as insufficient in some quarters and it is pointed out that one of the greatest needs under the new Act will be the development of a widespread system of secondary schools. It is urged that the financial methods of the Board of Education should be completely revised in order that the new grants may be paid as subsidiary grants covering elementary, secondary and technical education. Some such plan would seem to be inevitable in view of the fact that Authorities are invited to submit schemes covering all forms of education within their area and it will be expected that the grant will cover at least one half the cost of each approved scheme. There seems to be no reason, therefore, for attempting to allocate the grants from the centre, since the local administration may be called upon to appropriate for each form of education a suitable sum of money within the limits prescribed under the scheme as approved by the Boards.

TEACHERS FOR CONTINUATION SCHOOLS.

A highly important Circular has been issued by the Board of Education on the staffing of Continuation Schools, a matter which has been exercising the minds of educational administrators throughout the country. It is calculated that a complete system of Continuation Schools, if it were brought into existence now, would require the services of at least thirty-two thousand teachers at the end of three years, assuming that the classes would not exceed thirty in number and that the average teaching hours of each member of the staff would be at least twenty-four in each week. It is obvious that a simultaneous beginning cannot be made and the Board expressed the hope that employers and Local Authorities will co-operate in establishing Continuation Schools on a voluntary basis. This will afford opportunities for experiment and, in particular, will give facilities for affording to teachers that practical experience

of the conditions of work in Continuation Schools which will be essential to their success. No surplus of teachers is available from the elementary and secondary schools and as the Board point out, nothing is to be gained, so far as education in general is concerned, by merely transferring teachers from one branch to another, save in the few cases where the transfer gives to the teacher opportunities more suited to his own abilities and attainments. Thus, the problem is one of discovering a large number of new recruits for the teaching service of the country, and to this problem will be added a further one of providing for such recruits the necessary professional and other training which will enable them to work with success in the new types of school.

EDUCATION AS SOCIAL SERVICE.

The Board appear to think it not unlikely that a number of young men and women of the leisured classes will be willing to take up Continuation School work as a form of National Service. This is a term which has become familiar during the war and the idea which lies behind it has undoubtedly found acceptance with many who previously had no thought of their social duties save in the narrowest sense. Recently a small movement has been started in the shape of a Guild of Education as National Service, which endeavours to attract young people and especially young women into the work of teaching and offers them a course of professional training on lines suited to their needs and circumstances. It is obvious, however, that this method of recruiting will be uncertain in its results. Goodwill and zeal are not a sufficient equipment for a successful teacher and it may easily happen that the enthusiasm of these early years following the war will diminish. Very wisely the Board insist that the education service shall not be staffed by people who are nothing more than enthusiastic amateurs. It declares that they must be well trained for the work and also that they must be provided with adequate salaries. They think that Continuation Schools should be regarded from this point of view as a form of part-time secondary education and that the teachers should be paid at a rate not less than that usual in the district for secondary school teachers. In other respects also it is urged that the schools should provide those amenities which make for the teacher's comfort and welfare.

TYPES OF TEACHERS :—GENERAL.

Since the teachers in Continuation Schools are to be regarded as doing secondary school work, it is expected that the qualifications will approximate to those of University Graduates. This applies to all the general subject teachers. There are already a number of persons engaged in evening school work and in the conduct of youths' clubs who have not hitherto regarded teaching as more than a leisure time occupation. It is expected that some of them will be attracted by the new conditions and that they will take up teaching as a profession. Also some of those who have been students in the classes conducted by the Workers' Educational Association may wish to become teachers and it is not unlikely that some of our Army officers on demobilization will desire to take up the work. These sources of supply, however, will be quite inadequate in themselves and the Board look to the Universities to develop machinery for equipping and training those of their students who desire to become Continuation School teachers. The increased grant to Universities will

make this possible and it is suggested that the existing University Training College should be expanded on these lines. They should also link up the strictly professional training in teaching with some study of social conditions since, as the Circular says, "The teachers of the people must know how the people do their work. They must know the habits of their homes and what kind of recreation they prefer in their moments of leisure." Such knowledge may be obtained if the intending teacher takes up as part of his professional training a course of work in connection with a University settlement or interests himself in such organisations as juvenile employment committees and youths' clubs.

SPECIALIST TEACHERS.

It will be necessary to have on the staffs of the new schools some men and women who are experts in technological subjects and since these for the most part will not be primarily teachers by profession but followers of some other craft, it will be necessary to provide for them some training in teaching. Past experience has shown that even the most distinguished craftsman is not necessarily a good teacher, except in so far as his pupils learn from watching and imitating him. In such learning, however, there is no germ of development and it is therefore necessary that the craftsman should be able to explain why he does things in addition to showing how he does them. The training in teaching for this branch of the work will probably be best provided by short courses in special training colleges or by part-time courses conducted in the evenings. The existing technical colleges may well add to their equipment some provision for giving instruction in the principles of education in order that those of their students who intend to take up teaching may, from the start, connect their studies with their future work. The essential thing, however, is to recognise that in all teaching there is a common element and that in training the teacher of Classics we must deal with some of the same problems that will conflict the teacher of Engineering. Although the subjects taught are so widely different, the persons receiving instruction will have many points of resemblance. It is true that we have not yet advanced very far towards an accepted general method in teaching but continued experiment and the establishment of many new training centres will probably enable us to advance in this respect.

SCHOOLS AND MILITARY.

Ever since 1914 a number of our schools, both elementary and secondary, have been used as barracks for soldiers or for other purposes connected with the war. This led to great inconvenience and much disturbance of educational work but it was endured with patience, because national necessity was held to demand it. It is now some six months, however, since the Armistice was signed and in several districts the military are still in occupation of the schools and it is coming to be felt that they are not bestirring themselves in the matter with proper energy. Even the Central Offices of the Board of Education in London are still in the hands of the army, despite the fact that the setting up of machinery to work the new Education Act demands that the administration should be restored to its proper home with the utmost speed. How long this state of things will endure no one can say but there is a growing feeling of impatience and a steadily rising demand that the schools

and education shall no longer be handicapped in this fashion. Teachers have already been demobilized in large numbers but this step is rendered less serviceable than it might be if the schools were in all cases restored to their proper purpose. Unfortunately, it would seem as if there were many people interested in maintaining the outward and visible signs of active warfare long after we have achieved the realities of peace.

ART TEACHING.

An interesting effort is being made by the National Society of Art Masters to arouse public interest in the teaching of Art and in the place of Art in the life of the nation. The original intention of the founders of the Royal College of Art was indicated in the first name given to that institution when it was called The Royal School of Design. It was hoped that from the schools of art, many accomplished students would be encouraged to devote their talents to raising the standard of taste and artistic appreciation in the country generally. In practice, however, it has been found difficult to relate artistic standards and methods with the limitations of production on commercial lines and the present view appears to be that the art schools can perform their most useful service by taking up various forms of craft work and exhibiting them as examples of what furniture, decoration, buildings and other surroundings of our daily life should be. The effect of the work of the late William Morris is quoted as showing that it is possible to impose a fashion and thereby lead people to choose artistic things instead of ugly ones. The Art and Industries Association is especially interested in this effort and already some of our leading manufacturers are taking steps to seek advice from artists in order that the product of their factories may reach a higher standard of beauty.

PRACTICAL EDUCATION.

This movement is essentially in harmony with the trend of education in England. The example of Oundle School, where the Engineering Sixth form contains more pupils than does the Classical Sixth, is significant as showing that the instruction given in our schools and Universities tends more and more to be related to the actual life of the pupils. The problem is to teach practical subjects without ignoring the liberalising effects which should result from all true education. A narrow vocational training is admittedly unsound but it is held that a vocational training need not be narrow and that a pupil gains more by learning about things in which he is interested than he can possibly gain by enforced toil at what are called "humane" subjects.

FRANK ROSCOE.

THE LIBRARY MOVEMENT IN BENGAL.

THE "Library Movement" properly so called, was inaugurated in Bengal—and for that matter, throughout the vast peninsula of India—by Baron Curzon of Kedleston, without doubt one of the ablest of the Viceroys that have controlled the destiny of this historic land. It was solely due to the unfailing energy and statesmanlike foresight of

this broad-minded nobleman that the Calcutta Public Library, then in a decadent state, was, as by a magician's wand, converted into the present-day Imperial Library. It opened its portals to the reading public of Calcutta on the 30th of January, 1902; ever since that date students, authors and other readers, have found in the institution a blessed fountain which they can tap at will for the satisfaction of their intellectual thirst. The Imperial Library is the central diadem in the crown of libraries of Bengal; smaller libraries, answering to a fair extent the demands made upon them by scholars, had already been in existence,—the majority being attached to the Colleges of the Education Department. By far the largest of this class of library is unquestionably the one located in the Presidency College of Calcutta, which was founded in 1817 by a number of self-denying and philanthropic Indian gentlemen. The institution, on its foundation, was called the Mahapathsala or the Mahavidyalaya; in course of time it came to be designated the Hindu College, and was afterwards re-named the Presidency College.

The history of the library of the Presidency College of Calcutta is pre-eminently the history of the College libraries of Bengal. "Some of the young men educated at the Hindu College," observes a historian of this ancient institution who had been in intimate touch with its working in its earlier days, "came from distant parts of the country, from Assam, Vizagapatam, Patna and other places." Money was lavishly bestowed by Government upon the improvement of the College, as it was its avowed policy that the Presidency College should fulfil the functions of a "teaching University." It would indeed have been very disappointing if the premier College of the Province had not satisfied the sanguine expectations of the authorities, and had not been taken the lead in all Collegiate matters, libraries included. The history of the Presidency College library, therefore, (although there is not very much to record of steady progress, for a considerable period of its existence), may fittingly form the first of a series of articles on the library movement in the province.

It is a patent fact that a library and a laboratory form the very first adjuncts of a College; nay, the library has always, and rightly too, claimed the prior consideration. When the Hindu College was established in the second decade of the nineteenth century, a number of books went to make up a very necessary part of its paraphernalia. Moreover, the peculiar conditions under which English education was introduced into Bengal, made it incumbent that students (who, as a general rule, received instruction free of charge) should be provided with "class-books, slates, etc., belonging to the Committee" [of management of the Hindu College], for the loss of which the parents of the boys were to be held responsible. These books, which were returned after students had done with them, formed the first collection in the Hindu College library. The beginning was assuredly quite humble and unpretentious, but it was a fair beginning nevertheless.

Year after year the Hindu College went on sending out into the world sensible and cultured *alumni*, whose value in practical life became only too evident. People began to learn to rate education at its proper worth, and presently there grew a thirst for knowledge. The number of prospective scholars seeking admission into the Hindu College continued to rise and, at the same time, the Managers were confronted with

pecuniary difficulties. Compelled by outward circumstances it was considered expedient to abolish the system of free tuition and so the "fee" system was introduced in 1824. Scholars were not henceforward provided with text-books at the cost of the College : but the library appears to have accumulated a goodly number of volumes by this time. When the State came to its aid, the prospects of the Hindu College increased in every direction. In 1829 Government made a large grant for the publication of English class-books, and "gave a further sum of Rs. 5,000 to purchase books for the library."

It seems, however, that the library was not regularly resorted to; and whatever use may have been made of the books in the College collection it was far from what it should have been. The authorities concerned had their eyes wide open : means were being devised so as to attract students to the library in increasing numbers and enable them to have recourse to the books with advantage, "To encourage more general use of Library books," resolved the General Committee of Public Instruction in the course of the academical year 1839-40,—and this Resolution formed the text of Circular No. 2 of the year—"we have offered an annual gold medal to each of our Colleges and a silver medal to each of our Schools, to be awarded to the student who has made the greatest progress during the year in the knowledge attained from the books in the Library." This announcement had the desired stimulating effect and candidates were not wanting to offer themselves for examination for the Library Medal. The Education Department Report of three years later complacently observed,—“One of these library medals has been won by Sham Loll of the Agra College, and the libraries generally have been much resorted to.”

In spite of this incentive to library reading, in the shape of a library medal, it appeared that the studies pursued were of a desultory character. Students were sadly lacking in "method" in the pursuit of their studies: the subjects offered for examination were numerically no less than was the number of examinees. It was of the highest importance that the studies should be regulated and that students should learn how to benefit by systematic reading. The members of the Council of Education were not idle ; they were putting their heads together with a view to finding out some means by which the above ends could be encompassed and the solution was not long in coming. In Circular No. 5, dated December the 21st, 1849, the Council of Education resolved "to select a subject at the time of promulgating the standards in literature and history, and to examine the course of reading adopted by them [the examinees] in that particular subject."

When the library had been placed on a proper and secure footing regulations were framed for its satisfactory working. These regulations were applicable to all the libraries attached to the schools and colleges under the control of the Education Department, and furnish interesting reading.

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55. The Libraries in all Colleges shall be open from 9 to 6 o'clock every day, Sundays excepted.

58. All persons belonging to the Institution shall be allowed to take home books under the following restrictions :

1st. Not more than one volume shall be issued at the same time to the same person ; which volume shall be returned before a second is delivered.

2nd. A duodecimo volume shall not be kept longer than a week ; an octavo than a fortnight ; a folio than a month.

3rd. Books taken out of the Library by one person must not be transferred, but returned to the library.

59. Books of reference, such as Dictionaries, Encyclopaedias, Atlases, etc., shall not be taken home without the special permission of the Principal.

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61. Any person losing or damaging a volume shall pay its value or replace it with a similar book ; and when it belongs to a set, unless he can replace it, he shall pay the value of the set.

In 1848, ex-students of the College who so wished were permitted to read in the Library. The Library rules underwent a thorough revision in 1858, and students were required to deposit a fee of Rs. 10 to enable them to borrow books from the library ; this deposit was returned on the Librarian certifying that the student owed nothing to the library. Students, it would appear, had by this time imbibed a taste for reading ; the 'deposit' system did not produce any deterrent effect. In his Report for the year 1859-60, the Director of Public Instruction was glad to remark that " notwithstanding the enforcement of the rule requiring a student to deposit Rs. 10, previous to the issue of books in his name, the circulation of works was well maintained."

The 'deposit' system remained in force for about half a century till Sir Archdale Earle stepped into the shoes of the Director of Public Instruction in Bengal. His administration, which began in 1906, has left an indelible mark on the working of the Education Department ; no question was too insignificant to receive at his hands the most careful consideration. It became apparent to Sir Archdale's eagle vision that, however much the library might be resorted to by students for study or for pleasure, the 'deposit' system most certainly kept away a very large number who could not afford, or would not take the trouble to find, the 'deposit' money. The library movement had already received an impetus by the opening of the Imperial Library ; and signs were not wanting which very clearly indicated that the library as an institution had become popular in the country. With a laudable keenness of insight Sir Archdale anticipated a vast increase in the users of library books if students were allowed to take them out without the unnecessary precaution of a 'library deposit,' and abolished the system in 1908. The measure was amply justified by the results : books began to be issued from the library in ever increasing numbers, till in 1917-18 the number borrowed by students for home study from the Presidency College Library rose very nearly to eight thousand volumes.

It has been noted above that a sum of Rs. 5,000 was granted by Government in 1829 for the formation of the library. The recurring

annual grant, however, was for a very long time rather small, and amounted to the paltry sum of Rs. 100. From time to time, as the exigencies of the situation warranted, this sum was augmented by some little amount, until in the nineties it reached the round sum of Rs. 2,900. In 1898-99 the grant was somewhat reduced, and amounted to Rs. 2,680. Afterwards, in 1908 when the published report of the University Inspectors had attached a good deal of importance to the formation of good reference libraries connected with Universities and Colleges, the library grant of the Presidency College was increased to Rs. 4,000 annually; over and above, a non-recurring grant of Rs. 15,000 was made, to be spent in equal sums in three years for the purchase of complete sets of scientific periodical publications. The library has been slightly enriched by private donations; among its donors in the forties may be mentioned the Hon'ble William Wilberforce Bird, Deputy Governor of Bengal in 1842, and the Right Reverend Bishop Daniel Wilson, Lord Bishop of Calcutta and the first Metropolitan of India.

English literature, history and philosophy seem to have been the favourite subjects in the olden days; Whewell's "History of Inductive Sciences" and Sharon Turner's "Sacred History of the World" were among the library's earliest collection. The number of volumes in the library, as early as 1858, counted above seven thousand. Having steadily increased from year to year, the Presidency College Library now accommodates some forty thousand volumes on its shelves.

A history of College libraries would not be complete without a reference to the activities and recommendations of the Indian Universities Commission of 1902. "We attach great importance" observed the Commissioners with unmistakeable stress, "to the formation of good reference libraries in connection with Universities and Colleges. In a College where the library is inadequate or ill-arranged, the students have no opportunity of forming the habit of independent and intelligent reading." The recommendations did not fall on unheeding ears. Mr. W. W. Hornell (at present the Director of Public Instruction, Bengal), in drawing up the Third Quinquennial Review of Education in Bengal, considered at length the points raised, and expressed the hope that "a start might be made by overhauling the Presidency College Library" on desirable lines. Sir Archdale Earle, who was at the time seated at the head of the Bengal Education Department, in a Circular, dated March, 1908, went thoroughly into the question of the necessity of drastic changes in the management of College libraries. Mr. H. R. James, then Principal of the Presidency College, with characteristic energy, took up the question in right earnest and set to having his library re-arranged and a catalogue prepared on acknowledged scientific principles. This was completed in 1910. The improvements that have been made in the library during Mr. James's tenure of office are indeed very varied and far-reaching. A few "open" cases have been provided since 1911 which hold the most frequently used reference books, to which the reader has access without any formalities; suggestions for the purchase of books are invited from teachers and students alike; new library rules have been framed, so as to enable readers to get books with the minimum of inconvenience; and last, but not least, to provide sufficient seating space for the daily increasing number of readers in the library, the science books have been housed in a splendidly furnished room in the laboratories.

The question of the inadequacy of pay of librarians has for some time been voiced, in season and out of it, in the local newspapers. It has been pointed out time and again that the University Inspectors who were appointed as one of the results of the Indian Universities Commission of 1902 to go the round of Bengal Colleges, drew special attention to the staffing of libraries by suitable men. "The days are gone by," ran the Inspectors' report, "when we could be content to make over the management of a College Library to a clerk in his leisure moments or to an aspirant who had scraped through the Entrance Examination." Another batch of University Inspectors, who inspected the Calcutta Colleges, recommended that "the Library staff must everywhere be strengthened; more library superintendents and better qualified are wanted for the clerical work of libraries". Now that the Presidency College library has been overhauled and re-arranged and a number of other libraries have followed suit, the day may not be far off when properly qualified librarians, with improved prospects and recognised status, will be put in charge of all libraries worthy of the name.

GOKULNATH DHAR.

(To be continued.)

ELEMENTARY SCIENCE TEACHING.

(With special reference to the United Provinces.)

IF at a time when the incessant demands of the late world-war were weighing heavily on all minds Dr. Fisher could find time to think of introducing changes into the system of education obtaining in the United Kingdom, it is quite natural and pardonable for a teacher to think of the defects existing in the system of education, in the midst of which he is spending his days and to bring his reflections to bear especially on the subject which it is his special privilege to teach. The writer of these lines honestly feels that there is some wrong somewhere in the teaching of elementary science in these Provinces, and, although not quite sure whether the same is the case in other Indian Provinces, ventures to make remarks which will make science masters everywhere view their position and responsibility in a more serious light than heretofore. Perhaps few teachers have seriously bestowed their attention on this side of a boy's education, simply because they were satisfied with having done their duty if they saw their pupils through the science course, writing neat note-books and drawing neat diagrams, which pleased the headmasters and the inspectors alike.

That science teaching when properly conducted has immense possibilities in store and can contribute in a handsome manner towards the formation of character and thought on right lines has, thanks to the incessant efforts of what we may call the "Armstrong School" quite recently been realised in England, and it is a wonder that the same very important thought, so vital to the welfare of young boys and girls, has not yet found its way into many minds in India. Very few people in this country know the true value of science teaching in schools,—recognise

that perhaps science, with mathematics, is more important than all other subjects of the school curriculum and that a day will surely come when science will be the ruling factor in school education in our country as in all countries in the west.

The most common argument advanced in favour of science teaching is its great practical utility, as if each and every student of science could apply his knowledge of the subject-matter to some utilitarian purpose. It is quite a common experience of science masters and even of science students that people come to them with a thousand and one little difficulties of everyday life for satisfactory solution, ranging in order of difficulty from the removal of inkstains from shirts or oilstains from caps and hats to the preparation of writing ink or even of boot-polish. And how poorly the 'science' idols figure in the face of such problems ! Without going further into the dark side of the matter it seems to be within the bounds of reason to infer that science education, as it stands at present, fails to impart an adequate knowledge of useful facts, simply because it is not meant for that purpose ; as also it fails to infuse into the pupil scientific ways and habits of observation, thought and reasoning, simply because educationists are not fully alive to the importance of the subject.

I do not ask what the aim of the Allahabad University was when, in 1894, they included elementary science in the School Final Course, prescribing Balfour Stewart's *Physics Primer* and Roscoe's *Chemistry Primer* as text-books. But it is worth while noticing that this University continued to prescribe these two primers as text-books for the School Final Course for about fifteen years. No practical work was demanded from the boys, no method of teaching the subject suggested to teachers, no inquiry made whether a school could really teach science. Year after year these two primers continued to satisfy the requirements of the University authorities and boys learnt science by getting these by heart and without seeing any experiments, because they were not required to do any practical work. And even in 1908, when the old Entrance and School Final Examinations yielded place to the Matriculation Examination, how little was the change for the better ? An elaborate science course, consisting of Physics and Chemistry in quite substantial proportions, is prescribed but no practical work is required to be done by the students. The writer, himself a matriculate of this University, recalls almost with a sense of shame his own school days when in the science class he was asked to suppose that a pencil held out by his science teacher was a test-tube. The teacher may be to blame to some extent, but the real fault lies with the University which, for reasons best known to itself, continues still to divorce practical from theoretical work and yet boasts of about two thousand matriculation candidates every year having learnt science under its regime. It seems as if the authorities take pride in instilling into the hearts of boys of fifteen and sixteen a conceit of having learnt science by means of a ridiculous scheme, which is shameful, to say the least of it, to the University, the teachers and the students alike.

The School Leaving Certificate course proposes to remove much of this defect and, in establishing a co-ordinated course of experimental science, has removed a long standing grievance. The Educational Department of these Provinces has succeeded, under the guidance of

some sympathetic and experienced educationists, to tackle the problem of secondary education—I do not say of higher education—in a very satisfactory manner, and the authorities are not much to blame if headmasters and managers of schools and under them teachers, trained or untrained, do not go far beyond giving their boys a superficial instruction in the rudiments of science. Who cares for the method? The neat practical note-book seems to them to be the alpha and omega of science teaching in schools. The departmental curriculum prescribes a four years' course in elementary science, going so far as to show the teachers the lines along which they are to proceed by suggesting the aims of the course, the method of instruction and the amount of practical and theoretical work to be done in each class; and yet to the teacher it leaves the choice of arranging the whole course by making changes if necessary, so as to bring out the greatest good of which the subject is capable. In spite of this active spirit of helpfulness on the part of the Department the teachers make it their object to throw dust in the eyes of the inspectors and the examiners by insisting upon the boys preserving a neatly written record of work, only a part of which is perhaps their own. It is the teachers only who know what methods they adopt in teaching the subject. But facts do not speak much in their favour. It has been actually found that school-boys, who have had a thorough training for years together in writing out their note-books neatly and in the most methodical manner, have throughout done their work with disgust and on joining a college have invariably taken to the most careless habits of writing. And, on the other hand, their knowledge of the subject is generally poor and unsound, most of the time at school being spent in the most superficial form of work encouraged and insisted upon by the teacher. The only explanation of this anomalous state of affairs is that teachers do not on the one hand care much for infusing into young minds a taste for acquiring knowledge by intelligent methods, while on the other they fail to create among their pupils an interest in neat and methodical ways, which should be formed into useful and permanent habits, willingly acquired and eagerly kept up throughout life. Teachers are not ashamed to think and make their boys think that all neat, careful and methodical work is for the inspectors and examiners alone.

There are defects in the School Leaving Certificate science course, no doubt,—gaps to be filled up and important topics to be added—and in due course of time they are sure to be remedied. But what affects the thoughtful mind most is the striking contrast existing between the two sister examinations, which divide between themselves the attentions and energies of more than ten thousand youths every year. Only a year or two ago important changes were made in the Chemistry course for the Matriculation Examination. I allude to the addition of Chlorine and Hydrochloric Acid to the syllabus, and I admit these are quite important substances to study even in the school. But where is the demand for real science work? Are the boys required to do any practical work? The answer is in the negative. Even in 1920 the Allahabad University does not deem it necessary to include practical work in science for the Matriculation Examination!

However, it is not our main object here to criticise the ways and method of the University or the Department, but merely to point out

what appears to be the glaring defects of the courses of study in Physics and Chemistry for what we may call the pre-university examinations in our Provinces, and pass on to the main points of our discussion. Science teaching is fairly advanced in our Provinces, especially if we pause to compare our courses of study with those of the great University to our east, which has not yet seen its way to teach science before the college classes are reached. But taking everything into consideration we cannot console ourselves with anything approaching success on right lines. Although science is ruling every department of human activity all over the globe, the teachers of science in our country do not feel that they have accepted a tremendous responsibility in taking to the teaching profession, especially in undertaking to teach this particular subject. How many of them take pains to train their pupils in scientific ways and habits. They all know what the aim of the science teacher should be. But do they show by actually following it that their pupils are better in all respects than all other students of the schools? Do they succeed in making their pupils more thoughtful, more clever, more active, more intelligently observant, more solid and critical in their conception and acceptance of an idea, more acute in their reasoning than other pupils? And, do they not know that a student of science, if instructed and trained on right lines, is sure to be better in many ways than other less practical but more imaginative boys? Yet their activities are such as to leave the authorities to roost quietly in their apathetic indifference towards this highly useful subject, the only one of its kind which can give the growing minds of children interest, training, information and knowledge in equal and substantial proportions.

People may find fault with systems of education, but the writer lays the blame at the door of the teacher. If the teacher is unwilling to sacrifice his vanities, weaknesses and dissatisfactions to the interests of his pupils, he should never pose as a teacher of the young. No one is more alive than the writer to the fact that teachers all the world over are underpaid and overworked. But once you have accepted the work, there is no justification whatever for your doing it in a careless manner. Ill-paid or otherwise, if you once accept a work you must, if you are a man, do it with your heart and soul. If you have grievances,—and such are always sure to be—, struggle until they are removed. But for God's sake, do not ignore the existence of impressionable young boys and girls, whose budding energies have been placed under your care. It is the teachers who are to blame if they do not get their prospects improved by honest and successful work. And it is the teachers who are not only to be blamed but also cursed if they do not teach the children properly, simply because they happen to be dissatisfied with their present situation.

This irrelevant but important point naturally arises when the teacher's work is criticised. The writer of these lines feels that the curriculum in science for the School Leaving Certificate Examination, with all its defects, is fairly comprehensive, and with the addition of the subject of "Pressure" will make an excellent course of instruction, which, coming after a well-conducted course of Nature Study, is quite suitable for all students. One looks forward for the day when a systematic course of experimental Elementary Science and Nature Study will be made compulsory in schools in India, not for training pupils for further sci-

or technical work, but simply for training them in scientific ways and habits of thinking and acting. Of course the money and opportunities are to be provided by the authorities but the major portion of the work and the responsibility lies on the shoulders of the conscientious, honest, intelligent and hardworking science-master.

After this paper was written the writer received a copy of the new prospectus of the University of Allahabad in which happy and substantial changes for the better have been instituted in the courses in Physics and Chemistry for the Matriculation Examination of 1921. Suitable practical work has been made an integral part of the course and the records of such work are to be preserved by the candidates for inspection by authorised persons. This is a very happy change, no doubt, but the writer cannot refrain from emphasising the fact that the greatest good of which elementary science is capable can only result from honest, steady and conscientious work on the part of the science master. It is he whose work ought to be guided by proper suggestions and improved by suitable criticisms by educational authorities.

D. DEBNARYAN MUKERJEE.

MEMORY TRAINING IN SCHOOLS.

ANY one who is in touch with schoolboys of to-day cannot help being struck by the fact that very few have good memories. Very few, for example, remember half as many dates in History or half as many names in Geography as their fathers or grandfathers. It is a common experience of teachers nowadays to be frequently confronted with the reply "I have completely forgotten it, Sir." Contrast a boy of to-day getting up light-heartedly, and saying that he has clear forgotten a rule in grammar or the meaning of a word with another of two decades ago struggling to express the same thing in a trembling voice. It used to be considered a disgraceful thing to confess that a thing was forgotten; it was supposed to be as disgraceful as to say that a lesson was not prepared at all. The reason must be sought not in the boys of to-day so much as to the reformed methods of education which have thrown, without compromise, memory training into the back-ground. Formerly memory was all in all. It was more abused than used, because it was the only faculty that was developed at the cost of all the others. Now the pendulum has swung to the other extreme and no attempt whatsoever is made to cultivate the memory.

The old method resorted to by the teacher of the past may be best described by saying that it was no method, since no real teaching was done. He simply sat in the class-room like a judge dealing out justice, or rather injustice, and curious were the questions asked:—"What happened 10 years after the battle of Assaye? What happened five years and-a-half after Shivaji's taking the part of Torna" and so the time went on merrily (not however for the boys). Examination questions in History never omitted questions of the type "Assign events to the following dates and assign dates to the following events." In Geography, was a neglected subject, one inevitable question was "Where are